

Eisbericht Nr. 32

Amtsblatt des BSH

Jahrgang 97

Nr. 32

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1

Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 50 cm dickes, in den südlichen bis 25cm dickes Festeis. Weiter außerhalb kommt zuerst meist ebenes Eis vor und dann sehr dichtes Eis, welches meist 5-20cm dick ist, aber im Nordwesten auch bis zu 35cm dick und aufgepresst ist. Auf See gibt es um 64°40'N 22°40'E herum noch ein eisfreies Gebiet. An den Küsten von Norra Kvarken liegt bis 35cm dickes Festeis und auf See treibt bis 20cm dickes, dichtes bis sehr dichtes Eis. 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 bis zu 20cm dickes Festeis und ebenes Eis vor und davor treibt örtlich Neueis. Im östlichen Finnischen Meerbusen liegt 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 50 cm thick in the north and up to 25cm thick in the south. Further out there is first level ice, followed by mostly 5-20cm thick very close ice, but in the northwest the ice is up to 35cm thick and ridged. At sea there is an ice free area around 64°40'N 22°40'E. In the Quark there is up to 35cm thick fast ice at the coasts and at sea there is up to 20cm thick, close to very close ice. 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 up to 20cm thick fast or level ice and outside there is new ice in places. 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 Bay of Bothnia there is fast ice; 20-40cm thick in the northwest, 30-50cm 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; 15-35cm thick, partly ridged and rafted ice in the northwest and 5-20cm thick in the east and south-

west. Southwest of an ice free region around about 64°40'N 22°40'E there is new ice.

With air temperatures between -10°C and -30°C ice formation and growth will continue. With weak winds from variable direction ice drift will be minimal.

The Quark

There is 10–35 cm thick fast ice in the Vaasa archipelago and further out to about Norra Glopsten

5-20cm thick, very close ice. Farther out first thin level and then new ice. Along the Swedish coast

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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there is up to 20cm thick fast ice in inner bays and new ice further out. At sea and west of Holmöarna there is 5-20cm thick close or very close ice, further south new ice.

Sea of Bothnia

Thin level ice or 5-20cm thick fast ice is present in bays along both coasts. Further out on the Finnish side there is a 5-15nm wide area with new ice and ice formation. Outside the Swedish coast north of 63°N there is 5-20cm thick close ice. On Ångermanälven, there is 10–20 cm thick fast ice on the upper part and new ice or thin level ice is present

Archipelago Sea and Åland Sea

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

Northern Baltic

In Lake Mälaren there is 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 shel-

Gulf of Finland

From St. Petersburg to Kotlin there is 20–30 cm thick fast ice. Further west there is new ice to some nm west of Šepelevskij. In and outside the Bjerkesund there is nilas. In the top of Vyborg Bay there is 10–20 cm thick fast ice and new ice is present in and outside the entrance. Along the northern coast there is 5–20 cm thick fast ice and

Gulf of Riga

In Väinameri there is 5-15 cm thick fast ice in shallow bays and near the coasts. At sea there is nilas as well as close and very close, thin ice. In the Gulf of Riga itself there is new ice and open water along the northern and northeastern coast. In the Bay of Pärnu, to about from the line northern point of Kihnu to Haademeste, there is 5–15 cm close to very

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 new ice in few sheltered areas.

Swedish Lakes

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

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

in the lower part.

With temperatures around -20°C in the north and -10°C in the south ice growth and formation will continue. With an expected westward ice drift, the ice covered region outside the eastern coast will widen.

With moderate to strong frost new ice may also form in the outer archipelago.

tered places at the outer coast.

With strong frost possible new ice formation is expected.

thin level ice in the inner archipelago and farther out ice formation in places. Near the southern shore there is new ice in places. In Lake Saimaa there is 10-30cm thick fast ice.

With temperatures reaching down to values of -25°C ice formation and growth will continue and the ice will drift westwards.

close ice. Further out on the fairways very open drift ice in places. In the port of Riga very open ice is present and further on the fairway to Irben strait there is open water.

With air temperatures down to about -15°C ice formation and growth will continue and the expected ice drift is westwards.

frost new ice formation is expected.

With moderate frost ice expected in the northern fjords ice formation and ice growth is expected, and with expected light frost some ice formation may occur also in the more southerly regions.

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

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, Lap-pohja, 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.
	Saimaa Canal	2000 dwt 2000 dwt	IB IB	13.12. 13.12.
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	II	12.12.
	Rundvik and Husum	2000 dwt	IC	04.01.
	Holmsund and Örnköldsvik	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, Norrsundet, Gävle, Skutskär	2000 dwt	II	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet	2000 dwt	IC	04.01.
	Gävl	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	IC	18.12.
	Köping and Västeras	2000 dwt	IB	04.01.
	Balsta	2000 dwt	IC	04.01.
	Oxelösund, Norrköping, Västervik, Oskarshamn, Mösteras, Kalmar, De-gerhamn, Berkvara and Karlskrona	2000 dwt	II	04.01.
	Stenungsund and Uddevalla	2000 dwt	II	04.01.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	05.12.
	Trollhätte Canal and Göta Älv	2000 dwt	IC	04.01.
	Vänern	1300/2000 dwt	IC/II	05.12.
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 VOIMA assist 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.

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, 02.01.2024

Paernu, port and bay 5244
 Moonsund 5142

Finland, 02.01.2024

Röyttä – Etukari 8446
 Etukari – Ristinmatala 6356

Ajos – Ristinmatala 6356
 Ristinmatala – Kemi 2 5146
 Kemi 2 – Kemi 1 5756
 Sea area SW of Kemi 1 5756
 Kemi 2 – Ulkokrunni – Virpiniemi 7346
 Oulu harbours – Kattilankalla 8846
 Kattilankalla – Oulu 1 6356

Sea area SW of Oulu 1	5756	Rödkallen – Norströmsgrund	5476
High Sea N of the latitude of Marjaniemi	5356	Haraholmen – Nygrån	6336
Raahe harbour – Heikinkari	7346	Sea area off Nygrån	5246
Heikinkari – Raahe lighthouse	5246	Skelleftehamn – Gåsören	8346
Raahe lighthouse – Nahkiainen	5756	Sea area off Gåsören	5476
Latitude Marjaniemi – Ulkokalla, Sea	5356	Sea area off Bjuröklubb	5476
Rahja harbour – Välimatala	5146	NE of Nordvalen	4356
Välimatala to line Ulkokalla – Ykskivi	5756	SW of Nordvalen	4356
Sea betw. lat. of Ulkokalla – Pietarsaari	5756	Western Quark (W of Holmöarna)	4356
Ykspihlaja – Repskär	8746	Umeå – Väktaren	4356
Repskär – Kokkola lighthouse	5146	SE of Väktaren	4356
Sea area off Kokkola lighthouse	5256	NE and SE of Sydostbrotten	4046
Pietarsaari – Kallan	8746	Fairway to Husum	4356
Sea area off Kallan	4046	Örnsköldsvik – Hörnskatan	8346
Sea lat. Pietarsaari – NE Nordvalen	5756	Hörnskatan – Skagsudde	8346
Sea area ENE of Nordvalen	5756	Sea area off Skagsudde	4356
Sea area Nordvalen to W of Norrskär	4756	Fairway W of Ulvöarna	4356
Vaskiluoto – Ensten	7746	Ångermanälven north Sandö Bridge	8344
Ensten – Vaasa lighthouse	5746	Ångermanälven south Sandö Bridge	5244
Vaasa lighthouse – Norrskär	5146	Härnösand – Härnön	5244
Sea area SW of Norrskär	3036	Sundsvall – Draghallan	5246
Kaskinen – Sälgrund	8745	Draghallan – Åstholmsudde	4046
Sea area off Sälgrund	4045	Hudiksvallfjärden	5246
High sea from N to latitude Yttergrund	4045	Iggesund – Agö	5246
Pori harb. to line Pori lighth. – Säppi	4745	Sandarne – Hällgrund	5146
Sea W of line Pori lighthouse – Säppi	4045	Ljusnefjärden – Storsjungfrun	5146
Rauma, Harbour – Kymäpihlaja	5245	Gävle – Eggegrund	5146
Kymäpihlaja – Rauma lighthouse	4045	Öregrundsgrepen	4041
Sea area W of Rauma lighthouse	2005	Hallstavik – Svartklubben	5142
Uusikaupunki harbour – Kirsta	8145	Köping – Kvikksund	5244
Kirsta – Isokari	4045	Västerås – Grönsö	5244
Naantali and Turku – Rajakari	5142	Norrköping – Hargökalv	5142
Rajakari – Lövskär	4041	Fairway to Gruvön	4046
Lövskär – Korra	4041	Fairway to Karlstad	5146
Hanko harbours – Hanko 1	2001	Fairway to Kristinehamn	5146
Koverhar – Hästö Busö	4045		
Inkoo a. Kantvik – sea area Porkkala	5145		
Helsinki harbours – Harmaja	4045		
Vuosaari harbour – Eestiluoto	4045		
Valko Harbour – Täktarn	5145		
Archipelago fairway Boistö – Glosholm	3015		
Kotka – Viikari	3115		
Viikari – Orregrund	3015		
Orregrund – Tiiskeri	3015		
Hamina – Suurmusta	5155		
Suurmusta – Merikari	3015		
Merikari – Kaunissaari	2015		
Latvia, 02.01.2024			
Port of Riga	2000		
Riga to the Cape of Mersrags, fairway	1000		
Mersrags to Irben Strait, fairway	1000		
Sweden, 02.01.2024			
Karlsborg – Malören	6456		
Sea area off Malören	6456		
Luleå – Björnklack	8446		
Björnklack – Farstugrunden	5476		
E and SE of Farstugrunden	5476		
Sandgrönn fairway	6342		