

Eisbericht Nr. 78 Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek liegt im Norden 30–70 cm dickes Festeis und im Süden 20–55 cm dickes Festeis. Auf See treibt im Norden und Osten 30–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis. Im Süden treibt sehr lockeres bis dichtes, 10–30 cm dickes Eis in offenem Wasser. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis und auf See kommt zumeist offenes Wasser und örtlich sehr lockeres Eis vor. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes, ebenes Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich von 27°30' E treibt auf See sehr dichtes, 15–30 cm dickes Eis und weiter westlich bildet sich Neueis. Im Rigaischen Meerbusen kommt an der Küste bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht vor. Dünnes Eis kommt örtlich in der nördlichen Ostsee und dem Vänern vor. In einigen wenigen inneren Fjorden des Skagerraks liegt Festeis oder dünnes Eis.

Overview

In the archipelagos of the Bay of Bothnia, there is 40–70 cm thick fast ice in the north and 20–55 cm thick fast ice in the south. At sea in the north and east, there is mostly 30–70 cm thick, very close, ridged and rafted ice. In the southern part, there is 10–30 cm thick very open to close drift ice in open water. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos and at sea, there is mostly open water and very open ice at places. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice. In the Gulf of Finland, there is up to 45 cm thick fast ice along the northern and eastern coast. At sea east of about 27°30' E, there is very close 15–30 cm thick ice and new ice formation further west. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and in Pärnu Bay. Thin ice occurs at places in the northern Baltic and Lake Vänern. Fast ice or thin ice is present in a few inner fjords of the Skagerrak.

Bay of Bothnia

In and outside the northeastern archipelagos, there is 50–70 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice is 30–60 cm thick. Off the fast ice in the north and east, there is 40–60 cm thick consolidated ice, in the east to Kemi-2 and Oulu-1. Off the fast ice in the west, there is very close or consolidated, 20–40 cm thick ice. At sea, there is an area with very close, ridged, 40–70 cm thick ice

around 65°15′ N 23°30′ E. Else at sea, there is very close, 30–60 cm thick, ridged and rafted ice east of the line Simpgrund – Kokkola. The ice field is difficult to force in places and a brash ice barrier is present along the western ice edge. In the southern Bay of Bothnia, there is 20–45 cm thick fast ice along the Swedish coast; on the eastern coast there is 30–55 cm thick fast ice followed by a fringe of consolidated ice. At sea, there is mostly

Herstellung und Vertrieb

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© BSH - All rights reserved Reproduction in whole or in part prohibited open water with 10-30 m thick, very open ice at places and 10-30 cm thick, close ice northeast of Bjuröklubb and along the eastern fast ice edge.

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Norra Kvarken

In the archipelagoes off Vaasa, there is 30-55 cm thick fast ice to Ensten and then 10-35 cm thick, very close drift ice to Grynge. Along the Swedish coast, there is 20-40 cm thick fast ice in the archipelagos and 10-30 cm thick, very close ice inside Holmöarna. At sea, there is open water or 10-30

Minor ice formation is possible, but overall no larger changes are expected. The ice will drift to the north/northeast.

cm thick, very open ice at places. South of Nordvalen it is mostly ice free with open water along the

No larger changes are expected with an ice drift to the north.

Sea of Bothnia

On Ångermanälven, there is 20-50 cm thick very close ice in the upper part and 15-35 cm open or very close ice in the lower part. In the bays along the western coast, there is 10-40 cm thick fast ice. Further out, there is open water. Along the eastern coast, there is 10-40 cm fast ice in the inner archi-

pelagos, followed by a narrow belt of 10-35 cm thick, very close ice and very open ice further out. In the north, there are brash ice barriers at the ice

No larger changes are expected.

Archipelago and Aland Sea

10-30 cm thick fast ice and level ice is present in the inner archipelagos and bays of both coasts. At the eastern coast, there is very open ice and new ice on the fairways and open water in the outer archipelagos. Around the Åland Islands, there is thin level ice.

No larger changes are expected.

Gulf of Finland

From St. Petersburg up to the easternmost tip of Kotlin, there is 35–45 cm thick fast ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 25-45 cm thick compact or fast ice and very close ice in the entrance to Vyborg Bay. Outside a lead with level ice. At sea, east of a line from Haapasaari to Narva there is mostly very close, 15-30 cm thick ice and new ice formation further west to the line Kunda - Kalbådagrund - Helsinki - Porkkala. In Luga Bay there is 10-20 cm thick, very close ice. In the archipelagos of the northern coast, there is fast ice, 10-35 cm thick in the west and 30-55 cm thick in the east. Off the fast ice east of Loviisa, there is close to open, 5-30 cm thick ice.

Some new ice may form in the east, but overall no larger changes are expected with a slight northerly ice drift.

Gulf of Riga

In Moonsund, there is 10-20 cm thick fast ice at the eastern coast, followed by very close ice. Further out and on the fairways, there is mostly open water. In Pärnu Bay, there is 15-30 cm thick fast ice near the coast. Very close, ridged ice with new ice at places is present out to the line Manilaid -Häädemeeste.

Overall no larger changes are expected.

Northern Baltic

In Lake Mälaren, there is 10-30 cm thick fast ice or level ice in the western part, and further east, there is mostly thin level ice. In the central part, there are areas with open water or new ice. Along the Swe-

dish coast, there is partly broken, thin level ice at a few sheltered places.

No larger changes are expected, but some ice melt is possible.

Skagerrak and Kattegat

Near Tønsberg there is thin fast ice and in Hellefjorden near Kragerø there is 15-30 cm thick fast ice. Else it is mostly ice free.

Some ice melt is expected, but else no larger changes.

Swedish Lakes

In Lake Vänern, there is rotten ice in bays of the northern coast.

No larger changes are expected but ice melt will slowly continue.

Dr. W. Aldenhoff

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C	17.12.
Finland	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super(5000kW)/IA	09.02.
	Raahe	4000 dwt	i `IA	08.03.
	Kokkola, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	Kalajoki	4000 dwt	IA	08.03.
	Kristiinankaupunki, Pori, Rauma,	2000 dwt	II	01.01.
	Uusikaupunki, Naantali, Turku, Koverhar,			
	Lappohja, Helsinki and Sköldvik			
	Kaskinen, Taalintehdas and Förby	2000 dwt	I	16.01.
	Inkoo and Kantvik	2000 dwt	II	15.03.
	Loviisa and Kotka	2000 dwt	I	04.01.
	Hamina	2000 dwt	I	01.01.
	Mussalo	2000 dwt	II	25.12.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 2	14.01.
	Primorsk	-	Ice 2	27.01.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg and Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IC	14.03.
	Örnsköldsvik	2000 dwt	IC	15.01.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.
	Köping and Västerås	1300/2000 dwt	IC/II	02.03.

Information of the Icebreaker Services

Estonia

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

Finland/Sweden

The Saimaa Canal is closed for traffic from 30th of January.

The traffic separation schemes in the Quark are temporarily out of use from 15 January 2022.

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 78. 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:

OTSO, KONTIO, URHO, POLARIS, NORDICA, SISU, FREJ and YMER assist in the Bay of Bothnia. ATLE und ALE assist in the Quark and ZEUS in the Sea of Bothnia, FENNICA in the eastern Gulf of Finland.

Norway

Hellefjorden (Kragerø): Navigation temporarily closed. (28.02.22)

Russia

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

Icebreakers: Several icebreakers assist vessels to the port of Vyborg, Vysotsk, Primorsk, Ust-Luga and St. Petersburg.

Rafted ice

Rotten ice

Baltic Sea Ice Code

A 60123456 789	First number: 3 Amount and arrangements of sea ice lce free Open water – concentration less than 1/10 Very open ice - concentration 1/10 to 3/10 Open ice – concentration 4/10 to 6/10 Close ice – concentration 7/10 to 8/10 Very close ice – concentration 9/10 to 9+/10 Compact ice, including consolidated ice – concentration 10/10 Fast ice with drift ice outside Fast ice Lead in very close or compact drift ice or along the fast lce edge Unable to report
TE 0 1 2 3	Third number: Topography or form of ice Pancake ice, ice cakes, brash ice – less than 20 m across Small ice floes – 20 to 100 m across Medium ice floes – 100 to 500 m Big ice foes – 500 to 2000 m across Vast or giant ice floes – more than 2000 m across – or level ice

6 Compact slush or shuga, or compacted brash ice 7 Hummocked or ridged ice

Thaw holes or many puddles on the ice

No information or unable to report

Second number:

- Second number:

 Second number:

 Setage of ice development

 New ice or dark nilas (less than 5 cm thick)

 Light nilas (5 10 cm thick) or ice rind

 Grey ice (10 15 cm thick)

 Grey-white ice (15 30 cm thick)

 White ice, first stage (30 50 cm thick)

 White ice, second stage (50 70 cm thick)

 Medium first year ice (70 120 cm thick)
- Ice predominantly thinner than 15 cm with some thicker
- lice predominantly grey-white ice (15-30 cm) with some thicker ice
- 9 Ice predominantly thicker than 30 cm with some thinner
- No information or unable to report

Fourth number:

K_B Navigation conditions in ice

- Navigation unobscured
- Navigation difficult or dangerous for wooden vessels
- without ice sheathing
 Navigation difficult for unstrengthened or low-powered
 vessels built of iron or steel. Navigation for wooden vessels
 even with ice sheathing not advisable
 Navigation without icebreaker assistance possible only for
 high-powered vessels of strong construction and suitable
 for navigation in ice
- for navigation in ice
- Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker
- Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size
- Icebreaker assistance can only be given to vessels of special ice class and of special size
- Icebreaker assistance can only be given to vessels after after special permission
- Navigation temporarily closed
- Navigation has ceased

Unknown

Estonia, 17.03.2022		Sea area off Kallan	5856
Shipping route from Narva-Jõssuu	40//	Sea lat. Pietarsaari – NE Nordvalen	1726
Paernu, port and bay	7375	Sea area ENE of Nordvalen	2216
Moonsund	1//1	Sea area Nordvalen to W of Norrskaer	0//6
		Vaskiluoto – Ensten	8446
Finland, 16.03.2022		Ensten – Vaasa lighthouse	5326
Roeyttae – Etukari	8546	Vaasa lighthouse – Norrskaer	1216
Etukari – Ristinmatala	8846	Kaskinen – Sälgrund	5746
Ajos – Ristinmatala	8846	Sea area off Sälgrund	5766
Ristinmatala – Kemi 2	6876	Pori harb. to line Pori lighth. – Säppi	5245
Kemi 2 – Kemi 1	5876	Rauma, Harbour – Kylmäpihlaja	7765
Sea area SW of Kemi 1	5376	Kylmäpihlaja – Rauma lighthouse	1205
Kemi 2 – Ulkokrunni – Virpiniemi	8546	Uusikaupunki harbour – Kirsta	8745
Oulu harbours – Kattilankalla	8546	Kirsta – Isokari	1715
Kattilankalla – Oulu 1	6876	Naantali and Turku – Rajakari	7245
Sea area SW of Oulu 1	5476	Rajakari – Lövskär	2215
High Sea N of the latitude of Marjaniemi	5876	Lövskär – Korra	2215
Raahe harbour – Heikinkari	8446	Korra – Isokari	1105
Heikinkari – Raahe lighthouse	7446	Lövskär – Berghamn	1105
Raahe lighthouse – Nahkiainen	5876	Lövskär – Grisselborg	1105
Latitude Marjaniemi – Ulkokalla, Sea	5876	Inkoo a. Kantvik – sea area Porkkala	7205
Rahja harbour – Välimatala	6366	Helsinki harbours – Harmaja	2005
Vaelimatala to line Ulkokalla – Ykskivi	5476	Vuosaari harbour – Eestiluoto	2005
Sea betw. lat. of Ulkokalla –Pietarsaari	5856	Porvoo harbours – Varlax	2005
Ykspihlaja – Repskaer	8846	Varlax – Porvoo lighthouse	2005
Repskaer – Kokkola lighthouse	6366	Valko Harbour – Täktarn	7116
Sea area off Kokkola lighthouse	9836	Archipelago fairway Boistö – Glosholm	2006
Pietarsaari – Kallan	7856	Archipelago fairway Glosholm-Helsinki	2005

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8392 8392

Kotka – Viikari	5346	Fairway to Karlstad
Viikari – Orrengrund	3725	Fairway to Kristinehamn
Orrengrund – Tiiskeri	3725	ranway to renotinonamin
Tiiskeri – Kalbådagrund	2005	
Hamina – Suurmusta	7846	
Suurmusta – Merikari	4746	
Merikari – Kaunissaari	4746	
Merikan – Nauriissaan	4740	
Russian Federation, 17.03.2022		
Port of St. Petersburg	84/3	
<u> </u>	84/3	
St. Petersburg – E-point island Kotlin		
E-point Kotlin – long. lighth. Tolbuhkin	53/3	
Lighth. Tolbuhkin – lighth. –Šepelevskij	52/2	
Lighthouse Šepelevskij – island Sescar Island Sescar – Island Sommers	53/3	
	53/3	
Island Sommers—S-point island Gogland		
Vyborg, port and bay	84/3	
Island Vichrevoj – Island Sommers	53/3	
Strait Bjerkesund	53/3	
E-point Bol'šoj Ber'ozovyj – Šepelevskij	51/2	
Luga bay	52/2	
Appr. Luga bay – line MošŠepel.	52/2	
Sweden 47.02.2022		
Sweden, 17.03.2022	CAEC	
Karlsborg – Maloeren	6456	
Sea area off Maloeren	5576	
Luleå – Bjoernklack	6456	
Bjoernklack – Farstugrunden	6456	
E and SE of Farstugrunden	5576	
Sandgroenn fairway	6456	
Roedkallen – Norstroemsgrund	5456	
Haraholmen – Nygrån	8546	
Sea area off Nygrån Skelleftehamn – Gåsoeren	5456 5456	
Sea area off Gåsoeren	5456	
	5456 6456	
Sea area off Bjuroeklubb NE of Nordvalen	6456 1206	
	8346	
Western Quark (W of Holmoearna) Umeå – Vaektaren		
	8446 1206	
Fairway to Husum		
Oernskoeldsvik – Hoernskaten	8446 8446	
Hoernskaten – Skagsudde	1206	
Fairway W of Ulvoearna		
Ångermanaelven north Sandoe Bridge	5434 4434	
Angermanaelven south Sandoe Bridge		
Haernoesand – Haernoen	1206 1201	
Sundsvall – Draghaellan		
Draghaellan – Åstholmsudde	1201	
Hudiksvallfjaerden	8442	
Iggesund – Agoe	4432	
Sandarne – Haellgrund	1000	
Ljusnefjaerden – Storjungfrun Gaevle – Eggegrund	1000	
	8442	
Oeregrundsgrepen Hallstavik – Svartklubben	1000 8342	
Koeping – Kvicksund	8344	
Västerås – Grönsö	8344	
	5244	
Grönsö – Södertälje		
Stockholm – Södertälje Fairway to Gruvön	5242 5041	
i aliway to Gruvoli	JU 4 I	