

# Eisbericht Nr. 80 Amtsblatt des BSH

Jahrgang 95	Nr. 80	Monday, 21.03.2022	1
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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 ist meist offenes Wasser. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis und auf See kommt zumeist offenes Wasser 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°40' E treibt auf See sehr dichtes, 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht vor. Dünnes, teilweise morsches Eis kommt örtlich in der nördlichen Ostsee und dem Vänern vor. In einigen wenigen inneren Fjorden des Skagerraks liegt teilweise morsches Festeis.

#### 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 mostly open water. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos and mostly open water at sea. 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°40′ E, there is very close 15–30 cm thick ice. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and in Pärnu Bay. Thin, partly rotten ice occurs at places in the northern Baltic and Lake Vänern. Rotten fast 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. There is pressure in the ice field and it is difficult to force in places. A brash ice barrier is present along the western ice edge. In the southern Bay of Bothnia, there is 20–40 cm thick fast ice along the Swedish coast; on the eastern coast there is 30–55 cm thick fast ice followed by a narrow fringe of consolidated ice. At sea, there is mostly open water with 10–30 m thick, very open ice along the Swedish coast

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH) www.bsh.de/eis www.bsh.de/ice

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No larger changes are expected the coming day.

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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 5–30 cm thick, very open ice inside

#### Sea of Bothnia

Norra Kvarken

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and 15–35 cm open or very open 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-

#### Archipelago and Aland Sea

10–30 cm thick fast ice and level ice are present in the inner archipelagos and bays of both coasts. At the eastern coast, there is mostly open water on

#### **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. At sea, east of a line from Sommers to Narva there is mostly very close, 15–30 cm thick ice. In Luga Bay there is 10–20 cm thick, very open drift ice. In the archipelagos

### **Gulf of Riga**

In Moonsund, there is 10–20 cm thick fast ice at the eastern coast, followed by very close ice. The ice is partly rotten. 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,

#### **Northern Baltic**

In Lake Mälaren, there is 10–30 cm thick, rotten 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. Along the

#### Skagerrak and Kattegat

In Hellefjorden near Kragerø, there is partly rottemn fast ice. Else it is mostly ice free.

#### **Swedish Lakes**

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

Dr. W. Aldenhoff

The ice drift continues to the east/northeast.

Holmöarna. At sea, there is open water and south of Nordvalen it is mostly ice free with open water along the coasts.

No larger changes with some ice melt and a northeasterly ice drift are expected the coming day.

pelagos, followed by a very narrow belt of 10–35 cm thick, very close ice and open water further out. In the north, there is a brash ice barrier at the ice edge.

Some ice melt will occur but with night frost at places no larger changes are expected.

the fairways and in the outer archipelagos. Around the Åland Islands, there is thin level ice.

Some ice melt is expected the coming day.

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 open to very open, 5–30 cm thick ice.

Ice melt is expected in the west. In the east no larger changes are expected with a slight easterly ice drift.

ridged ice with new ice at places is present out to the line Manilaid –Häädemeeste.

Some ice melt is expected the coming day but else no larger changes

Swedish coast, there is partly broken and rotten thin level ice at a few sheltered places.

Ice melt is expected the coming day.

Ice melt is expected the coming day.

Ice melt will continue the coming day.

#### **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	4000 dwt	IA	21.03.
	Raahe	4000 dwt	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	2000 dwt	I	16.01.
	Taalintehdas and Förby	2000 dwt	II	21.03.
	Inkoo and Kantvik	2000 dwt	ll 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	ll ll	22.12.
	Köping and Västerås	-	cancelled	21.03.

#### 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, **ODEN** and YMER assist in the Bay of Bothnia. 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.

## **Baltic Sea Ice Code**

First number:  A <sub>B</sub> 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 fas Ice edge  / Unable to report
Third number:  Tb 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

Second number:

Second number:

S<sub>B</sub> Stage 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 ice

lce 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<sub>B</sub> Navigation conditions in ice

Navigation unobscured

1 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

Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker

Itel 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, 21.03.2022		Sea area off Kallan	5876
Paernu, port and bay	7375	Sea lat. Pietarsaari – NE Nordvalen	1716
Moonsund	1//0	Sea area ENE of Nordvalen	1216
		Vaskiluoto – Ensten	8446
Finland, 21.03.2022		Ensten – Vaasa lighthouse	5326
Roeyttae – Etukari	8546	Vaasa lighthouse - Norrskaer	0//6
Etukari – Ristinmatala	8546	Kaskinen – Sälgrund	5746
Ajos – Ristinmatala	8546	Sea area off Sälgrund	5766
Ristinmatala – Kemi 2	6476	Pori harb. to line Pori lighth Säppi	4245
Kemi 2 – Kemi 1	5476	Rauma, Harbour – Kylmäpihlaja	7765
Sea area SW of Kemi 1	5476	Kylmäpihlaja – Rauma lighthouse	1205
Kemi 2 – Ulkokrunni – Virpiniemi	8546	Uusikaupunki harbour – Kirsta	8745
Oulu harbours – Kattilankalla	8546	Kirsta – Isokari	1715
Kattilankalla – Oulu 1	6476	Naantali and Turku – Rajakari	7245
Sea area SW of Oulu 1	5476	Rajakari – Lövskär	2215
High Sea N of the latitude of Marjaniemi	5476	Lövskär – Korra	2215
Raahe harbour – Heikinkari	8546	Korra – Isokari	1105
Heikinkari – Raahe lighthouse	7476	Lövskär – Berghamn	1105
Raahe lighthouse – Nahkiainen	5476	Lövskär – Grisselborg	1105
Latitude Marjaniemi – Ulkokalla, Sea	5476	Inkoo a. Kantvik – sea area Porkkala	7205
Rahja harbour – Välimatala	6366	Helsinki harbours – Harmaja	1005
Vaelimatala to line Ulkokalla – Ykskivi	5476	Vuosaari harbour – Eestiluoto	2005
Sea betw. lat. of Ulkokalla –Pietarsaari	5456	Porvoo harbours – Varlax	2005
Ykspihlaja – Repskaer	8846	Varlax – Porvoo lighthouse	1005
Repskaer – Kokkola lighthouse	6866	Valko Harbour – Täktarn	7716
Sea area off Kokkola lighthouse	2726	Archipelago fairway Boistö – Glosholm	2105
Pietarsaari – Kallan	7856	Archipelago fairway Glosholm-Helsinki	2105

Kotka – Viikari	5346	Fairway to Kristinehamn	8392
Viikari – Orrengrund	2715	Tanway to Thethrenami	0002
Orrengrund – Tiiskeri	1005		
Hamina – Suurmusta	7846		
Suurmusta – Merikari	5746		
Merikari – Kaunissaari	3716		
Russian Federation, 21.03.2022			
Port of St. Petersburg	84/3		
St. Petersburg – E-point island Kotlin	84/3		
E-point Kotlin – long. lighth. Tolbuhkin	53/3		
Lighth. Tolbuhkin – lighth. –Šepelevskij	52/2		
Lighthouse Šepelevskij – island Sescar	53/3		
Island Sescar – Island Sommers	53/3		
Vyborg, port and bay	84/3		
Island Vichrevoj – Island Sommers	53/3		
Strait Bjerkesund	63/3		
E-point Bol'šoj Ber'ozovyj – Šepelevskij	51/2		
Luga bay	2212		
Appr. Luga bay – line MošŠepel.	52/2		
Sweden, 21.03.2022			
Karlsborg – Maloeren	6456		
Sea area off Maloeren	5576		
Luleå – Bjoernklack	6456		
Bjoernklack – Farstugrunden	5576		
E and SE of Farstugrunden	5576		
Sandgroenn fairway	6456		
Roedkallen – Norstroemsgrund	5456		
Haraholmen – Nygrån	6456		
Sea area off Nygrån	6456		
Skelleftehamn – Gåsoeren	5456		
Sea area off Gåsoeren	5456		
Sea area off Bjuroeklubb	6456		
NE of Nordvalen	0//6		
SW of Nordvalen	0//6 2326		
Western Quark (W of Holmoearna) Umeå – Vaektaren	8446		
Fairway to Husum	1206		
Oernskoeldsvik – Hoernskaten	8446		
Hoernskaten – Skagsudde	8446		
Fairway W of Ulvoearna	1206		
Ångermanaelven north Sandoe Bridge	5434		
Ångermanaelven south Sandoe Bridge	4434		
Haernoesand – Haernoen	1206		
Sundsvall – Draghaellan	3122		
Draghaellan – Åstholmsudde	3122		
Hudiksvallfjaerden	8442		
Iggesund – Agoe	4432		
Sandarne – Haellgrund	1000		
Ljusnefjaerden – Storjungfrun	1000		
Gaevle – Eggegrund	8442		
Oeregrundsgrepen	1000		
Hallstavik – Svartklubben	8342		
Koeping – Kvicksund	8394		
Västerås – Grönsö Grönsö – Södertälie	4234 5244		
Grönsö – Södertälje Stockholm – Södertälje	5244 5242		
Fairway to Gruvön	5242 5041		
Fairway to Gruvon Fairway to Karlstad	8392		
I all way to Railotau	300 <u>2</u>		