BUNDESAMT FÜR SEESCHIFFFAHRT

# Eisbericht Nr. 51 Amtsblatt des BSH 

Nr. 51
Tuesday, 07.02.2023

## Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 55 cm dickes Festeis und im Süden bis 25 cm dickes Festeis. Auf See treibt im Nordwesten dünnes ebenes Eis und im Nordosten sehr dichtes bis 30 cm dickes und örtlich aufgepresst Eis. Im Süden treib auf See lockeres bis dichtes dünnes Eis. In Norra Kvarken liegt bis 35 cm dickes Festeis in den Schären und Buchten und dünnes Eis auf See. In der Bottensee und dem Schärenmeer kommt dünnes, ebenes Eis oder Festeis entlang der Küsten vor. Im Mälarsee liegt dünnes, ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 40 cm dickes Festeis und dichtes bis sehr dichtes Eis auf See im Osten. In den Schären und Buchten entlang der nördlichen Küste kommt Festeis vor. Im Nordosten des Rigaischen Meerbusen befindet sich 10-20 cm dickes Festeis oder sehr dichtes Eis und Neueis in geschützten Gebieten.

## Overview

In the archipelagos of the Bay of Bothnia, there is up to 55 cm thick fast ice in the north and up to 25 cm thick fast ice in the south. At sea, there is thin level ice in the northwestern part and very close, up to 30 cm thick and partly ridged ice in the eastern part. At sea in the south, there is open to close thin ice. In the Quark, there is up to 35 cm thick fast ice in the archipelagos and bays and thin ice at sea. In the Sea of Bothnia and the Archipelago Sea, there is fast ice or thin level ice along the coasts. In Lake Mälaren, there is thin level ice and new ice. In the Gulf of Finland, there is up to 40 cm thick fast ice in the easternmost bays and close to very close ice at sea in the east. In the archipelagos and bays along the northern coast, there is fast ice. In the northeastern Gulf of Riga, there is $10-20 \mathrm{~cm}$ thick fast ice or very close ice in sheltered bays.

## Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is $25-55 \mathrm{~cm}$ thick fast ice and compact, up to 45 cm thick ice to Malören and off the eastern fast ice. Further out in the northwestern part, there is mostly thin level ice. In the eastern part, there is very close $5-20 \mathrm{~cm}$ thick and partly rafted ice to about Oulu-1. Further south, there is very close, partly ridged and $10-30 \mathrm{~cm}$ thick ice to about the
latitude of Raahe. In the southern Bay of Bothnia, there is $5-25 \mathrm{~cm}$ thick fast ice in the archipelagos and very close, thin ice 3-5 NM further out in the east. At sea, there is mostly $3-10 \mathrm{~cm}$ thick, open to close drift ice.
Some new ice formation is possible in coastal areas the coming day and the ice will drift to the northeast/east.

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\section*{The Quark}

There is \(10-35 \mathrm{~cm}\) thick fast ice in the Vaasa archipelago out to Storhästen. Further out, there is very close, thin and partly rafted ice to Vaasa lighthouse. On the Swedish side, there is mostly fast ice in inner bays and thin level ice west of Holmöarna. At sea in the southern part, there is

\section*{Sea of Bothnia}

In the archipelagos along the eastern coast, there is \(10-20 \mathrm{~cm}\) thick fast ice. New ice is present further out in the north. Along the western coast, there is thin level ice or new ice in sheltered bays in the south and up to 20 cm thick fast ice in inner

\section*{Archipelago Sea and Åland Sea}

At the eastern coast, there is \(5-15 \mathrm{~cm}\) fast or level ice in the inner bays and new ice somewhat further ice. In the western and central part new ice is pre-

\section*{Northern Baltic}

In Lake Mälaren, 5-15 cm thick fast ice or thin level ice in the western part. In the eastern part, there is new ice in sheltered bays. New ice occurs

\section*{Gulf of Finland}

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is \(20-40 \mathrm{~cm}\) thick fast ice or compact ice. In the Bay of Vyborg, there is 15-25 cm thick fast ice. In the Bjerkesund, there is 10-25 cm thick fast ice. East of the line Kotka - Ust-Luga, there is close to very close, \(5-20 \mathrm{~cm}\) thick drift ice. Further west to Gogland, there is new ice or very open drift ice. Along the northern coast, there is

\section*{Gulf of Riga}

In Väinameri, there is \(10-20 \mathrm{~cm}\) thick fast ice or very close ice in sheltered bays. Between the islands Hiiumaa and Saaremaa, there is new ice. On the fairway is very open ice to the island Kumari and further south to the island Kuralaid, there is new ice. In the Bay of Pärnu, there is \(10-20 \mathrm{~cm}\)

\section*{Skagerrak and Kattegat}

Up to 15 cm thick ice or new ice is present in some inner Norwegian Fjords. At a few places thicker ice occurs.

\section*{Swedish Lakes}

Thin level ice or new ice is present in some sheltered bays of Lake Vänern.
very open, \(2-10 \mathrm{~cm}\) thick drift ice from coast to coast. In the northern part north of about Nordvalen, there is open to close, \(3-10 \mathrm{~cm}\) thick drift ice. No larger changes are expected the coming day. The ice will drift to the northeast/east.
bays in the north. Further out is very open ice in the south and open water in the north. On Ångermanälven, there is \(10-30 \mathrm{~cm}\) thick fast or level ice. No larger changes are expected the coming day.
sent along the coasts.
No larger changes are expected the coming day.
in sheltered places along the outer coast. No larger changes are expected the coming day.

10-25 cm thick fast ice in the eastern archipelagos. Further out, there is new ice and open water west of Kotka. In the western archipelagos, there is \(5-15 \mathrm{~cm}\) thick fast ice and new ice further out.
Some new ice formation is expected in the eastern part the coming day. The ice will drift to the northeast/east.
thick fast ice along the coast. Further out to the island Sorgu, there is very close ice followed by new ice to the latitude of Jaagupi. From Riga to Kolka, there is open water.
No larger change is expected the coming day and the ice will drift to the northeast.

In the northern Oslofjord some ice formation may occur the coming day. Else, no larger changes are expected.

Some ice melt is possible but else no larger changes are expected.

Dr. W. Aldenhoff

Restrictions to Navigation
\begin{tabular}{|c|c|c|c|c|}
\hline & Harbour/District & At least dwt/hp/kW & Ice Class & Begin \\
\hline Estonia & Pärnu & 1600 kW & 1 C & 23.12. \\
\hline Finland & \begin{tabular}{l}
Tornio, Kemi and Oulu \\
Raahe, Kalajoki, Kokkola, Pietarsaari and Vaasa \\
Kaskinen, Inkoo, Kantvik, Helsinki, \\
Sköldvik and Mussalo \\
Loviisa, Kotka and Hamina
\end{tabular} & \begin{tabular}{l}
2000 dwt \\
2000 dwt \\
2000 dwt \\
2000 dwt
\end{tabular} & \begin{tabular}{l}
IA I \\
II \\
II
\end{tabular} & \[
\begin{aligned}
& \hline 01.02 . \\
& 07.01 . \\
& 07.01 . \\
& 24.12 .
\end{aligned}
\] \\
\hline Russia & Vyborg and Vysotsk & - & Ice 1 & 08.02. \\
\hline Sweden & \begin{tabular}{l}
Karlsborg and Lulea Haraholmen and Skelleftehamn Rundvik, Husum and Örnsköldvik \\
Holmsund \\
Angermanälven \\
Köping and Västeras \\
Balsta
\end{tabular} & 2000 dwt
2000 dwt
2000 dwt
2000 dwt
2000 dwt
\(1300 / 2000 \mathrm{dwt}\)
\(1300 / 2000 \mathrm{dwt}\) & \[
\begin{gathered}
\text { IB } \\
\text { IC } \\
\text { II } \\
\text { IC } \\
\text { IB } \\
\text { IC/II } \\
\text { IC/II }
\end{gathered}
\] & \[
\begin{aligned}
& \hline 08.01 . \\
& 25.12 . \\
& 21.12 . \\
& 07.02 . \\
& 07.01 . \\
& 25.01 . \\
& 22.12 .
\end{aligned}
\] \\
\hline
\end{tabular}

\section*{Estonia}

\section*{Icebreakers:}

EVA-316 assists in the port of Pärnu.

\section*{Finland/Sweden}

The Saimaa Canal is closed for traffic since \(4^{\text {th }}\) January.
Vessels bound for Gulf of Bothnia ports in which assistance restrictions apply, shall when passing latitude \(60^{\circ} 00^{\prime} \mathrm{N}\) 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 104927600 .

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 ( \(63^{\circ} 32.15^{\prime} \mathrm{N} 20^{\circ} 46.60^{\prime} \mathrm{E}\) ), 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 7 February due to ice conditions.

\section*{Icebreakers:}

KONTIO, OTSO, SISU, ATLE, YMER and FREJ assist in the Bay of Bothnia. ZEUS assists in the Quark and the Sea of Bothnia. ALE assists in the Quark. CALYPSO assists in the region of Kotka and Hamina.

\section*{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.

\section*{Baltic Sea Ice Code}
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First number:
AB Amount and arrangements of sea ice
O 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

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    Third number:
\(\mathrm{T}_{\mathrm{B}}\) 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
Second number:
\(\mathrm{S}_{\mathrm{B}}\) Stage of ice development
0 New ice or dark nilas (less than 5 cm thick)
1 Light nilas ( \(5-10 \mathrm{~cm}\) thick) or ice rind
2 Grey ice ( \(10-15 \mathrm{~cm}\) thick)
3 Grey-white ice ( \(15-30 \mathrm{~cm}\) thick)
4 White ice, first stage ( \(30-50 \mathrm{~cm}\) thick)
5 White ice, second stage ( \(50-70 \mathrm{~cm}\) thick)
6 Medium first year ice ( \(70-120 \mathrm{~cm}\) thick)
7 Ice predominantly thinner than 15 cm with some thicker
ice
8 Ice predominantly grey-white ice ( \(15-30 \mathrm{~cm}\) ) with some
thicker ice
9 Ice predominantly thicker than 30 cm with some thinner
ice
/ No information or unable to report

\section*{Fourth number:}
\(\mathrm{K}_{\mathrm{B}}\) 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 after special permission
8 Navigation temporarily closed
9 Navigation has ceased
/ Unknown

\section*{Estonia, 07.02.2023}

Paernu, port and bay 73/5
Moonsund 5001
Finland, 06.02.2023
Röyttä - Etukari 8446
Etukari - Ristinmatala 7856
Ajos - Ristinmatala 7856
Ristinmatala - Kemi \(2 \quad 5146\)
Kemi 2 - Kemi \(1 \quad 5146\)
Sea area SW of Kemi \(1 \quad 5146\)
Kemi 2 - Ulkokrunni - Virpiniemi 7856
Oulu harbours - Kattilankalla 8446
Kattilankalla - Oulu 17856
Sea area SW of Oulu \(1 \quad 5356\)
High Sea N of the latitude of Marjaniemi 5756
Raahe harbour - Heikinkari 5356
Heikinkari - Raahe lighthouse 5356
Raahe lighthouse - Nahkiainen 5756
Latitude Marjaniemi - Ulkokalla, Sea 4356
Rahja harbour - Välimatala 5246
Vaelimatala to line Ulkokalla - Ykskivi 4046
Sea betw. lat. of Ulkokalla -Pietarsaari 4146
Ykspihlaja - Repskär 5756
Repskär - Kokkola lighthouse 4046
Sea area off Kokkola lighthouse 4046
Pietarsaari - Kallan 5746
Sea area off Kallan 5746
Sea lat. Pietarsaari - NE Nordvalen 4756
\begin{tabular}{ll} 
Sea area ENE of Nordvalen & 4146 \\
Sea area Nordvalen to W of Norrskär & 3106 \\
Vaskiluoto - Ensten & 8746 \\
Ensten - Vaasa lighthouse & 5756 \\
Vaasa lighthouse - Norrskär & 3106 \\
Sea area SW of Norrskär & 2006 \\
Kaskinen - Sälgrund & 8745 \\
Sea area off Sälgrund & \(0 / / 5\) \\
Pori harb. to line Pori lighth. - Säppi & 4142 \\
Rauma, Harbour - Kylmäpihlaja & 5142 \\
Uusikaupunki harbour - Kirsta & 8142 \\
Naantali and Turku - Rajakari & 4041 \\
Rajakari - Lövskär & 2000 \\
Hanko - Vitgrund & 1000 \\
Koverhar - Hästö Busö & 3001 \\
Inkoo a. Kantvik - sea area Porkkala & 8145 \\
Sea area at Porkkala & 1005 \\
Helsinki harbours - Harmaja & 2005 \\
Vuosaari harbour - Eestiluoto & 2005 \\
Porvoo harbours - Varlax & 2005 \\
Varlax - Porvoo lighthouse & 1005 \\
Valko Harbour - Täktarn & 8745 \\
Archipelago fairway Boistö - Glosholm & 2005 \\
Archipelago fairway Glosholm-Helsinki & 2005 \\
Kotka - Viikari & 8745 \\
Viikari - Orrengrund & 2115 \\
Orrengrund - Tiiskeri & 1005 \\
Hamina - Suurmusta & 8745 \\
Suurmusta - Merikari & 3125
\end{tabular}
Merikari - Kaunissaari ..... 2115
Latvia, 07.02.2023
Port of Riga ..... 1000
Riga to the Cape of Mersrags, fairway ..... 1000
Mersrags to Irben Strait, fairway ..... 1000
Norway, 07.02.2023
Svinesund - Halden ..... 31//
Drammensfjord ..... 4112
Husøysund - Tønsberg channel ..... 8345
Tønsberg, inner harbour ..... 8353
Vestfjord (Tønsberg) ..... 8555
Langårsund (Kragerø) ..... 8144
Russian Federation, 07.02.2023
Port of St. Petersburg ..... 84/3
St. Petersburg - E-point island Kotlin ..... 54/2
E-point Kotlin - long. lighth. Tolbuhkin ..... 4302
Lighth. Tolbuhkin - lighth. -Šepelevskij ..... 42/2
Lighthouse Šepelevskij - island Sescar ..... 4332
Island Sescar - Island Sommers ..... 42/2
Island Sommers- S-point island Gogland ..... 30/2
Vyborg, port and bay ..... 83/3
Island Vichrevoj - Island Sommers ..... 42/3
Strait Bjerkesund ..... 83/3
E-point Bol'šoj Ber'ozovyj - Šepelevskij ..... 42/2
Luga bay ..... 42/2
Appr. Luga bay - line Moš.-Šepel. ..... 42/2
Sweden, 07.02.2023
Karlsborg - Malören ..... 6456
Sea area off Malören ..... 5356
Luleå - Björnklack ..... 8446
Björnklack - Farstugrunden ..... 5146
E and SE of Farstugrunden ..... 5146
Sandgrönn fairway ..... 5356
Rödkallen - Norströmsgrund ..... 5146
Haraholmen - Nygrån ..... 5146
Sea area off Nygrån ..... 5146
Skelleftehamn - Gåsören ..... 5236
Sea area off Gåsören ..... 5146
Sea area off Bjuröklubb ..... 5146
NE of Nordvalen ..... 4256
SW of Nordvalen ..... 2126
Western Quark (W of Holmöarna) ..... 5146
Umeå - Väktaren ..... 5146
SE of Väktaren ..... 2126
NE and SE of Sydostbrotten ..... 2126
Fairway to Husum ..... 1106
Ornsköldsvik - Hörnskaten ..... 8346
Hörnskaten - Skagsudde ..... 5246
Sea area off Skagsudde ..... 1106
Fairway W of Ulvöarna ..... 4046
Sea area E of Ulvöarna ..... 1006
Ångermanälven north Sandö Bridge ..... 8344
Ångermanälven south Sandö Bridge ..... 8344
Härnösand - Härnön ..... 5144
Sundsvall - Draghällan ..... 5142
Draghällan - Åstholmsudde ..... 5142
Off Åstholmsudde and Brämön ..... 1000
Hudiksvallfjärden ..... 5242
Iggesund - Agö ..... 5242
Sandarne - Hällgrund ..... 5142
Ljusnefjärden - Storjungfrun ..... 5142
Gävle - Eggegrund ..... 5142
Öregrundsgrepen ..... 2020
Hallstavik - Svartklubben ..... 5142
Stockholm - Trälhavet - Klövholmen ..... 4041
Köping - Kvicksund ..... 8244
Västerås - Grönsö ..... 8244
Grönsö - Södertälje ..... 4044
Stockholm - Södertälje ..... 4044
Södertälje - Fifong ..... 4044
Norrköping - Hargökalv ..... 4041
Västervik - Marsholmen - Idö ..... 4041
Fairway to Gruvön ..... 4041
Fairway to Karlstad ..... 5142
Fairway to Kristinehamn ..... 5142```

