

# Eisbericht Nr. 80 Amtsblatt des BSH

| Jahrgang 96 | Nr. 80 | Tuesday, 21.03.2023 | 1 |
|-------------|--------|---------------------|---|
|             |        |                     |   |

## Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 65 cm dickes Festeis und im Süden bis 40 cm dickes Festeis. Im Westen befindet sich eine Meereisrinne bis nach Kvarken. Auf See treibt zumeist sehr dichtes, aufgeschobenes und aufgepresstes Eis, welches im Norden bis 60 cm dick und im Süden bis 30 cm dick ist. Im Südosten kommen entlang des Festeises Gebiete mit sehr lockerem Eis vor. In Kvarken liegt bis 45 cm dickes Festeis in den Schären und Buchten und auf See kommt 5–20 cm dickes, sehr lockeres bis dichtes Eis vor. In der Bottensee und dem Schärenmeer kommt entlang der Küsten 5–40 cm dickes, ebenes Eis oder Festeis vor. Im Mälarsee liegt 5–15 cm dickes Eis oder Neueis. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 50 cm dickes Festeis. Auf See treibt östlich von etwa 27°25'E sehr dichtes, 5–25 cm dickes Eis und im Süden zumeist sehr lockeres Eis von der Luga Bucht ostwärts. 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 in geschützten Buchten.

## Overview

In the archipelagos of the Bay of Bothnia, there is up to 65 cm thick fast ice in the north and up to 40 cm thick fast ice in the south. Along the western coast runs a lead of very open ice to the Quark. At sea, there is ridged and rafted, mostly very close ice that is up to 60 cm thick in the north and up 30 cm thick in the south. Along the fast ice in the southeast, there are areas of very open ice. In the Quark, there is up to 45 cm thick fast ice in the archipelagos and bays and at sea, there is 5–20 cm thick, very open to close ice. In the Sea of Bothnia and the Archipelago Sea, 5–40 cm thick fast ice or level ice is present along the coasts. In Lake Mälaren, there is 5–15 cm thick ice and new ice. In the Gulf of Finland, up to 50 cm thick fast ice is present in the easternmost bays. At sea east of about 27°25'E, there is very close, 5–25 cm thick ice and mostly very open ice in the south eastwards from Luga Bay. In the archipelagos and bays along the northern coast, there is fast ice. In the northeastern Gulf of Riga, there is 10–20 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 45–65 cm thick fast ice and compact ice, out to Malören, Kemi-3 and Kattilankalla. Of the fast ice in the west, there is a lead of very open ice from Nygrån to the Quark. At sea, there is very

close, 30–60 cm thick and ridged ice north of about 65°00'N and 30–50 cm thick, ridged and very close ice further south in the east. Else at sea to the Quark, there is 10–30 cm thick rafted very close ice in the west and 10–30 cm thick, ridged and

#### Herstellung und Vertrieb

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© BSH - All rights reserved Reproduction in whole or in part prohibited rafted, very close ice in the east. In the southern Bay of Bothnia, there is 15–40 cm thick fast ice in the archipelagos and areas of very open ice further out in the east.

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Ice growth and ice formation will continue the coming day and there will be a decreasing ice drift to the east/southeast.

#### The Quark

There is 25–45 cm thick fast ice in the Vaasa archipelago out to Ensten. Further out, there is 5–20 cm thick ice of varying concentration to Norrskär. On the Swedish side, there is mostly up to 35 cm thick fast ice in inner bays. At sea, there is 5–20

cm thick, open to very close ice north of about 63°25'N with very open ice along the northern fast ice edge of the eastern archipelago.

Ice growth is expected the coming day and there will be a decreasing ice drift to the east.

#### Sea of Bothnia

In the archipelagos along the eastern coast, there is 15–30 cm thick fast ice. Further out in the north, there is very close ice with a brash ice barrier. Further out in the south, there is thin ice of varying concentration. Along the western coast, there is thin level ice or thin ice in sheltered bays in the

south and up to 40 cm thick fast ice in inner bays in the north. On Ångermanälven, there is 20–40 cm thick fast or level ice.

With temperatures around the freezing point no larger changes are expected.

## Archipelago Sea and Aland Sea

At the eastern coast, there is 5–20 cm fast or level ice in the inner bays and thin ice further out in the archipelago. In the western and central part, thin level ice is present in inner bays and thin ice fur-

ther out.

No larger changes are expected the coming day but some melt especially in the western part.

#### **Northern Baltic**

In Lake Mälaren, there is 5–15 cm thick fast in the western part. Else, there is thin ice or open water. Thin ice occurs in sheltered places along the outer

coast

Some ice melt is expected the coming day.

#### **Gulf of Finland**

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is 30–50 cm thick fast ice and 20–35 cm thick compact ice in the fairway. In the Bay of Vyborg, there is 20–40 cm thick fast ice and in the Bjerkesund, there is 15–25 cm thick fast ice. East of about 27°20'E, there is mostly very close, 10–30 cm thick drift ice. The ice field is ridged and rafted at places and also cracks occur. Areas of

very open to open drift ice are present from Luga Bay to Kotlin and to about Seskar in the north. Along the northern coast, there is 15–35 cm thick fast ice in the eastern archipelagos. Further out, there is open to very close ice. In the western archipelagos, there is 5–20 cm thick fast ice.

No larger changes are expected the coming day. The ice will slightly drift to the east/northeast.

# **Gulf of Riga**

In Väinameri, there is 10–20 cm thick fast ice and very close drift ice near the coasts. On the fairway is open water. In the Bay of Pärnu, there is mostly close to very close drift ice up to about the line Saulepa – Uulu. Further out it is mostly ice free

with a narrow band of drift ice along the eastern coast.

Some ice melt is expected the coming day and there will be some ice drift to the east/northeast.

#### Skagerrak and Kattegat

New ice and up to 30 cm thick fast is present in some inner Norwegian Fjords and the Oslo area. Close new ice is present in the Drammensfjord.

Some ice melt is expected the coming day in the Skagerrak and no major changes in the Oslofjord.

#### **Swedish Lakes**

Thin level ice or thin ice of varying concentration is present in sheltered bays of Lake Vänern.

Some ice melt is expected the coming day.

# **Restrictions to Navigation**

|                | Harbour/District                    | At least          | Ice Class | Begin  |
|----------------|-------------------------------------|-------------------|-----------|--------|
|                |                                     | dwt/hp/kW         |           |        |
| <b>Finland</b> | Tornio, Kemi and Oulu               | 4000 dwt          | IA        | 22.02. |
|                | Raahe                               | 4000 dwt          | IA        | 08.03. |
|                | Kalajoki, Kokkola and Pietarsaari   | 2000 dwt          | IA        | 08.03. |
|                | Vaasa                               | 2000 dwt          | IB        | 08.03. |
|                | Kristiinankaupunki, Pori, Rauma and | 2000 dwt          | II        | 12.03. |
|                | Uusikaupunki                        |                   |           |        |
|                | Kaskinen, Inkoo, Kantvik, Helsinki, | 2000 dwt          | II        | 07.01. |
|                | Sköldvik and Mussalo                |                   |           |        |
|                | Loviisa, Kotka and Hamina           | 2000 dwt          | ļ         | 08.03. |
| Russia         | Vyborg and Vysotsk                  | -                 | Ice 1     | 08.02. |
| Sweden         | Karlsborg                           | 4000 dwt (2000 t) | IA        | 28.02. |
|                | Lulea                               | 4000 dwt          | IA        | 28.02. |
|                | Haraholmen and Skelleftehamn        | 4000 dwt          | IA        | 04.03. |
|                | Holmsund                            | 2000 dwt          | IC        | 07.02. |
|                | Rundvik and Husum                   | 2000 dwt          | IC        | 04.03. |
|                | Örnsköldsvik                        | 2000 dwt          | IC        | 13.02. |
|                | Angermanälven                       | 2000 dwt          | IB        | 07.01. |
|                | Söraker, Sundsvall and Söderhamn    | 2000 dwt          | IC        | 13.02. |
|                | Köping and Västeras                 | 2000 dwt          | IC        | 06.03. |
|                | Balsta                              | 1300/2000 dwt     | IC/II     | 22.12. |
|                | Härnösand, Stocka, Hudiksvall,      | 2000 dwt          | II        | 06.03. |
|                | Iggesund, Orrrskär and Norrsundet   |                   |           |        |

#### **Estonia**

## Icebreakers:

**BOTNICA** assists to the port of Sillamae.

## Finland/Sweden

The Saimaa Canal is closed for traffic since 4th January.

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.

The traffic separation schemes in the Quark are temporarily out of use from 7 February due to ice conditions.

#### Icebreakers:

POLARIS, KONTIO, OTSO, SISU, ODEN, ATLE, YMER and FREJ assist in the Bay of Bothnia. ZEUS assists in the southern Bay of Bothnia and in the Quark. ALE assists in the Quark. URHO assists in the eastern Gulf of Finland.

#### **Norway**

Husøysund and Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. 31.01.23

# Russia

There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg, Ust-Luga and Primorsk. No sailing of barge by tug to Vyborg and Vysotsk.

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

# **Baltic Sea Ice Code**

| First number:  AB Amount and arrangements of sea ice  1  | Second number:  SB 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)  Medium first year ice (70 - 120 cm thick)  keep redominantly thinner than 15 cm with some thicker ice  loe predominantly grey-white ice (15 - 30 cm) with some thicker ice  loe predominantly thicker than 30 cm with some thinner ice  No information or unable to report  |
|--|--|
| Third number:  TB 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  Rafted ice  Compact slush or shuga, or compacted brash ice  Hummocked or ridged ice  Thaw holes or many puddles on the ice  Rotten ice  No information or unable to report | Fourth number:  Ks 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  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, 21.03.2023                      |      | Ykspihlaja – Repskär                    | 7356 |
|--|------|---|------|
| Shipping route from Narva-Jõssuu         | 1/12 | Repskär – Kokkola lighthouse            | 5356 |
| Paernu, port and bay                     | 51/2 | Sea area off Kokkola lighthouse         | 5356 |
|  |      | Pietarsaari – Kallan                    | 8846 |
| Finland, 21.03.2023                      |      | Sea area off Kallan                     | 5356 |
| Röyttä – Etukari                         | 8546 | Sea lat. Pietarsaari – NE Nordvalen     | 4356 |
| Etukari – Ristinmatala                   | 6456 | Sea area ENE of Nordvalen               | 3736 |
| Ajos – Ristinmatala                      | 6456 | Sea area Nordvalen to W of Norrskär     | 2726 |
| Ristinmatala – Kemi 2                    | 5476 | Vaskiluoto – Ensten                     | 7756 |
| Kemi 2 – Kemi 1                          | 5476 | Ensten – Vaasa lighthouse               | 5756 |
| Sea area SW of Kemi 1                    | 5476 | Vaasa lighthouse – Norrskär             | 2726 |
| Kemi 2 – Ulkokrunni – Virpiniemi         | 6456 | Kaskinen – Sälgrund                     | 5755 |
| Oulu harbours – Kattilankalla            | 7456 | Sea area off Sälgrund                   | 5165 |
| Kattilankalla – Oulu 1                   | 6456 | Pori harb. to line Pori lighth. – Säppi | 8745 |
| Sea area SW of Oulu 1                    | 5476 | Rauma, Harbour – Kylmäpihlaja           | 3035 |
| High Sea N of the latitude of Marjaniemi | 5476 | Uusikaupunki harbour – Kirsta           | 8745 |
| Raahe harbour – Heikinkari               | 8446 | Kirsta – Isokari                        | 2105 |
| Heikinkari – Raahe lighthouse            | 7356 | Naantali and Turku – Rajakari           | 3112 |
| Raahe lighthouse – Nahkiainen            | 5356 | Rajakari – Lövskär                      | 1000 |
| Latitude Marjaniemi – Ulkokalla, Sea     | 5476 | Lövskär – Korra                         | 1000 |
| Rahja harbour – Välimatala               | 7356 | Lövskär – Berghamn                      | 1000 |
| Vaelimatala to line Ulkokalla – Ykskivi  | 5356 | Lövskär – Grisselborg                   | 1000 |
| Sea betw. lat. of Ulkokalla -Pietarsaari | 5356 | Hanko – Vitgrund                        | 1000 |

Fairway W of Ulvöarna

Ångermanälven north Sandö Bridge

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| Koverhar – Hästö Busö                    | 2000                                    | Ångermanälven south Sandö Bridge   |
|--|---|------------------------------------|
| Inkoo a. Kantvik – sea area Porkkala     | 8145                                    | Härnösand – Härnön                 |
| Helsinki harbours – Harmaja              | 2005                                    | Sundsvall – Draghällan             |
| Vuosaari harbour – Eestiluoto            | 2005                                    | Draghällan – Åstholmsudde          |
| Porvoo harbours – Varlax                 | 5145                                    | Hudiksvallfjärden                  |
| Varlax – Porvoo lighthouse               | 3725                                    | Iggesund – Agö                     |
| Valko Harbour – Täktarn                  | 5146                                    |                                    |
|  |   | Sandarne – Hällgrund               |
| Archipelago fairway Boistö – Glosholm    | 4766                                    | Ljusnefjärden – Storjungfrun       |
| Archipelago fairway Glosholm-Helsinki    | 5145                                    | Sea area off Storjungfrun          |
| Kotka – Viikari                          | 8345                                    | Gävle – Eggegrund                  |
| Viikari – Orrengrund                     | 4765                                    | Öregrundsgrepen                    |
| Orrengrund – Tiiskeri                    | 4766                                    | Hallstavik – Svartklubben          |
| Hamina – Suurmusta                       | 5756                                    | Trälhavet – Furusund – Kapellskär  |
| Suurmusta – Merikari                     | 5756                                    | Stockholm – Trälhavet – Klövholmen |
| Merikari – Kaunissaari                   | 4766                                    | Köping – Kvicksund                 |
|  |   | Västerås – Grönsö                  |
| Norway, 21.03.2023                       |   | Grönsö – Södertälje                |
| Svinesund – Halden                       | 31//                                    | Stockholm – Södertälje             |
| Drammensfjord                            | 5011                                    | Södertälje – Fifong                |
| Husøysund – Tønsberg channel             | 8345                                    | Fairway to Karlstad                |
| Tønsberg, inner harbour                  | 8353                                    | Fairway to Kristinehamn            |
| Vestfjord (Tønsberg)                     | 8555                                    | Fairway to Otterbäcken             |
| Langårsund (Kragerø)                     | 8144                                    | . aa, to ottorious.                |
| _angaroana (magonz)                      | • |                                    |
| Russian Federation, 21.03.2023           |   |                                    |
| Port of St. Petersburg                   | 84/3                                    |                                    |
| St. Petersburg – E-point island Kotlin   | 53/3                                    |                                    |
| E-point Kotlin – long. lighth. Tolbuhkin | 5303                                    |                                    |
| Lighth. Tolbuhkin – lighth. –Šepelevskij | 31/3                                    |                                    |
| Lighthouse Šepelevskij – island Sescar   | 53/2                                    |                                    |
| Island Sescar – Island Sommers           | 53/2                                    |                                    |
| Vyborg, port and bay                     | 83/3                                    |                                    |
| Island Vichrevoj – Island Sommers        | 53/3                                    |                                    |
| Strait Bjerkesund                        | 83/3                                    |                                    |
| •  |   |                                    |
| E-point Bol'šoj Ber'ozovyj – Šepelevskij | 53/2                                    |                                    |
| Luga bay                                 | 43/3                                    |                                    |
| Appr. Luga bay – line MošŠepel.          | 23/2                                    |                                    |
| Sweden, 21.03.2023                       |   |                                    |
| Karlsborg – Malören                      | 6456                                    |                                    |
| Sea area off Malören                     | 5576                                    |                                    |
| Luleå – Björnklack                       | 8546                                    |                                    |
| Björnklack – Farstugrunden               | 5356                                    |                                    |
| •  | 5356                                    |                                    |
| E and SE of Farstugrunden                |   |                                    |
| Sandgrönn fairway                        | 8546                                    |                                    |
| Rödkallen – Norströmsgrund               | 5356                                    |                                    |
| Haraholmen – Nygrån                      | 8546                                    |                                    |
| Sea area off Nygrån                      | 5356                                    |                                    |
| Skelleftehamn – Gåsören                  | 5356                                    |                                    |
| Sea area off Gåsören                     | 5356                                    |                                    |
| Sea area off Bjuröklubb                  | 5356                                    |                                    |
| NE of Nordvalen                          | 4356                                    |                                    |
| SW of Nordvalen                          | 2326                                    |                                    |
| Western Quark (W of Holmöarna)           | 8346                                    |                                    |
| Umeå – Väktaren                          | 8446                                    |                                    |
| SE of Väktaren                           | 4356                                    |                                    |
| Örnsköldsvik – Hörnskaten                | 8446                                    |                                    |
| Hörnskaten – Skagsudde                   | 8446                                    |                                    |