ISSN 0013-2705

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

# Eisbericht Nr. 12

## Amtsblatt des BSH

| Jahrgang 98 | Nr. 12 | Friday, 20.12.2024 | 1 |
|---|---|---|---|

### Übersicht

In der Bottenwiek befindet sich in den inneren Schären 5–15 cm dickes, ebenes Eis und Neueis. Auf See im Nordosten kommt Neueis vor. In Norra Kvarken liegt dünnes ebenes Eis und Neueis in Schären und Buchten. In der Bottensee liegt meist Neueis entlang der Küsten und im Norden vereinzelt auch dünnes ebenes Eis. Im östlichen Finnischen Meerbusen kommt 5–10 cm dickes Eis und Neueis bis westlich vom Leuchtturm Tolbuchin vor. Ansonsten kommt Neueis in geschützten Gebieten entlang der nördlichen Küste im Finnischen Meerbusen, dem Schärenmeer, der Ålandsee, dem Mälarsee, im Väinameri und im nordöstlichen Vänern vor.

### Overview

In the Bay of Bothnia, there is 5–15 cm thick, level ice and new ice in the inner archipelagos. At sea in the northeast, there is new ice. In the Quark, there is thin level ice at places and new ice in bays and archipelagos. In the Sea of Bothnia, there is new ice along the coast and thin level ice at places in the north. In the eastern Gulf of Finland, there is 5–10 cm thick ice and new ice to west of lighthouse Tolbuchin. Else, there is new ice at sheltered places along the northern coast of the Gulf of Finland, the Archipelago Sea, the Åland Sea, Lake Mälaren, Väinameri and the north-eastern Lake Vänern.

### Bay of Bothnia

In the inner archipelagos of the Bay of Bothnia, there is 5–15 cm thick level ice. Along the level ice edge, broken new ice is piled up at places. Farther out thin ice and new-ice is found up to Bothnia buoy and Raahe lighthouse.

With light to moderate frost, new ice formation and ice growth are expected the coming days. With a fresh to strong breeze from the north, which will turn to the east on Sunday, the ice will drift to the south and west.

### The Quark

In the Vaasa archipelago, there is 2–10 cm thick level ice in the inner archipelago. New ice is found further out to about Strömningsbådan. Along the Swedish coast, there is thin level ice and new ice in sheltered places.

With temperatures dropping slightly below 0 °C during night no larger changes are expected but some ice formation is possible.

### Sea of Bothnia

Along the northern Swedish coast, there is thin level ice and new ice in inner bays. Further south, there is new ice at sheltered places. 5–10 cm thick, level ice is present on Ångermanälven. Along the Finnish coast, there is new ice.

With temperatures slightly above 0 °C in the south

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and some light frost in the northern part no larger changes are expected over the weekend.

**Åland Sea**
New ice is present in some sheltered places. With temperatures mostly above 0°C no larger changes are expected over the weekend.

**Archipelago Sea**
New ice is present in sheltered places along the coast. With temperatures mostly above 0°C no larger changes are expected over the weekend.

**Gulf of Finland**
From St. Petersburg to lighthouse Tolbuchin, there is very close, 5–10 cm thick ice and new ice further west to Cape Seraya Loshad. In Vyborg Bay, there is thin level ice in the inner bay and new ice further out. In sheltered places along the northern coast and in the Bjerkesund, there is new ice. In Lake Saimaa and Saimaa Canal, there is thin level ice and new ice at places.
With temperatures around and slightly above 0 °C in the western part, no larger changes are expected but some ice melt in the western part.

**Gulf of Riga**
New ice is present in some sheltered places in Väinameri. With temperatures mostly above 0 °C some ice melt is expected over the weekend.

**Northern Baltic**
In Lake Mälaren thin level ice and new ice is present at sheltered places. With temperatures mostly above 0 °C some ice melt is expected over the weekend.

**Skagerrak and Kattegat**
New ice may be found in very few sheltered Norwegian fjords. With temperatures mostly above 0 °C some ice melt is expected over the weekend.

**Swedish Lakes**
New ice is present at some sheltered places in the northeast of Lake Vänern. With temperatures mostly above 0°C some ice melt is expected over the weekend.

Dr. X. Lange

## Restrictions to Navigation

| | Harbour/District | At least dwt/hp/kW | Ice Class | Begin |
|---|---|---|---|---|
| **Finland** | **Tornio, Kemi, Oulu, Kokkola, Pietarsaari and Vaasa** | **2000 dwt** | **II** | **21.12.** |
| | **Raahe and Kalajoki** | **2000 dwt** | **II** | **25.12.** |
| | Lake Saimaa | 2000 dwt | II | 11.12. |
| | Saimaa Canal | 2000 dwt | II | 11.12. |
| **Sweden** | Karlsborg and Lulea | 2000 dwt | II | 07.12. |
| | **Haraholmen** | **2000 dwt** | **II** | **22.12.** |
| | **Skeleftehamn** | **2000 dwt** | **II** | **23.12.** |
| | Angermanälven | 1300/2000 dwt | IC/II | 07.12. |
| | **Angermanälven** | **2000 dwt** | **IC** | **22.12.** |
| | **Köping** | **1300/2000 dwt** | **IC/II** | **22.12.** |

### Finland/Sweden

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:** MATARI assists in the northern Lake Saimaa. KONTIO is heading to the Bay of Bothnia.

### Russia

**Icebreakers:** SEMYON DEZHNEV and **K. PLAKHIN** assist vessels to the port of St. Petersburg.
**K. IZMAYLOV** assists to Vyborg and Vysotsk.

## Baltic Sea Ice Code

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

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 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:
**$S_B$** 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

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 after special permission
8 Navigation temporarily closed
9 Navigation has ceased
/ Unknown

**Finland, 20.12.2024**

| | |
|---|---|
| Röyttä – Etukari | 5152 |
| Etukari – Ristinmatala | 5152 |
| Ajos – Ristinmatala | 5152 |
| Ristinmatala – Kemi 2 | 5142 |
| Kemi 2 – Kemi 1 | 5142 |
| Sea area SW of Kemi 1 | 4041 |
| Kemi 2 – Ulkokrunni – Virpiniemi | 5142 |
| Oulu harbours – Kattilankalla | 5152 |
| Kattilankalla – Oulu 1 | 4041 |
| Sea area SW of Oulu 1 | 4041 |
| High Sea N of the latitude of Marjaniemi | 4041 |
| Raahe harbour – Heikinkari | 5042 |
| Heikinkari – Raahe lighthouse | 4041 |
| Raahe lighthouse – Nahkiainen | 1001 |
| Rahja harbour – Välimatala | 4041 |
| Ykspihlaja – Repskär | 5142 |
| Pietarsaari – Kallan | 5142 |
| Vaskiluoto – Ensten | 5142 |

**Russian Federation, 20.12.2024**

| | |
|---|---|
| Port of St. Petersburg | 510/ |
| St. Petersburg – E-point island Kotlin | 510/ |
| E-point Kotlin – long. lighth. Tolbuhkin | 510/ |
| Vyborg, port and bay | 810/ |
| Strait Bjerkesund | 300/ |
| E-point Bol'šoj Ber'ozovyj – Šepelevskij | 300/ |

**Sweden, 20.12.2024**

| | |
|---|---|
| Karlsborg – Malören | 5256 |
| Sea area off Malören | 4046 |
| Luleå – Björnklack | 5256 |
| Björnklack – Farstugrunden | 4046 |
| Sandgrönn fairway | 4046 |
| Rödkallen – Norströmsgrund | 4046 |
| Haraholmen – Nygrån | 4041 |
| Sea area off Nygrån | 4041 |
| Sea area off Bjuröklubb | 4041 |
| Umeå – Väktaren | 5142 |
| Örnsköldsvik – Hörnskaten | 4041 |
| Ångermanälven north Sandö Bridge | 5144 |
| Ångermanälven south Sandö Bridge | 5144 |
| Hudiksvallfjärden | 4041 |
| Iggesund – Agö | 4041 |
| Köping – Kvicksund | 5142 |
| Grönsö – Södertälje | 4041 |
| Stockholm – Södertälje | 4041 |
| Fairway to Karlstad | 4041 |
| Fairway to Kristinehamn | 4041 |