



Eisbericht Nr. 76

Amtsblatt des BSH

Jahrgang 97

Nr. 76

Monday, 04.03.2024

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 70 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–70 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes Eis, das teilweise sehr schwer zu passieren ist. Weiter südlich kommt außerhalb der Küsten sehr lockeres bis lockeres Eis vor und ansonsten offenes Wasser. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See liegt im Westen 10–40 cm dickes, sehr dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb kommt im Osten offenes Wasser vor. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Im Norden treibt nördlich von 60°10'N meist sehr dichtes, 10–35 cm dickes Eis und im Südosten kommt offenes Wasser vor. Im Rigaischen Meerbusen kommt im Nordosten zu 35 cm dickes, morsches Festeis vor. Auf See treibt im Norden entlang der Küste sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Kalmar bis 30 cm dickes Festeis oder dünnes, ebenes Eis vor.

Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 70 cm thick in the north and up to 50 cm thick in the south. At sea in the north, there is mostly 30–70 cm thick, very close, ridged and rafted ice that is very difficult to force at places. Further south there is very open to open ice outside the coasts and else open water. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea in the west there is 10–40 cm thick, very close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 55 cm thick in the east and up to 30 cm thick in the west. Outside the eastern coast there is open water. Level ice or fast ice covers large parts of the Archipelago Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the northern part there is very close, 10–35 cm thick drift ice north of 60°10'N and in the southeast there is mostly open water at sea. In the Gulf of Riga there is up to 35 cm thick rotten fast ice in the northeast and very close ice is present off the coast in the north. Else up to 30 cm thick fast ice or thin level ice is present in the Mälaren, Vänern, Norwegian fjords and along the Swedish coast north of Kalmar.

Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 40–70 cm thick in the north and up to 25–50 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and

Raahe lighthouse. At sea north of about 64°35'N and east of 22°20'E, there is mostly 30–70 cm thick, ridged and rafted ice; the field is very difficult to force at places. Further west and north of

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64°50'N there is rafted, 20-50cm thick very close ice. Further south there is first a narrow region with 10–35 cm thick very close ice followed by open water at sea. Outside the Swedish coast south of about Blackkallen there is 10-35cm thick open ice

The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten. Along the Swedish coast there is up to 40 cm thick fast ice. Off the Swedish coast, there is a 15-20nm wide region with 15–50 cm thick, rafted and ridged, very close ice with a

Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–40 cm thick fast ice. At the fast ice edge in the east there is shuga at places with open water further out. The western and central part are practi-

Archipelago Sea and Åland Sea

In the Archipelago Sea there is 25–50 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, fast ice or level ice with some cracks is present in the outer archipelagos to

Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. Along the outer Swedish coast there is 5–15 cm thick fast ice or thin level ice.

Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–40 cm thick in the west and up to 60 cm thick in the east. In the Vyborg Bay there is 35-45cm thick fast ice and in the Bjerkesund there is 20–45 cm thick fast ice; very close ice is present in both entrances. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 40–50 cm thick fast ice. Off the northern fast ice there is 10–25 cm thick very close ice in the west and in the

Gulf of Riga

In Väinameri there is 25–35 cm thick rotten fast ice near the coasts and very close, 10–30 cm thick ice at sea. Off the south coast of Saaremaa there is very close, 5–20 cm thick ice off the coast. In the Bay of Pärnu, there is 25–45 cm thick rotten fast

Central Baltic

5-15cm thick ice of varying concentrations is present in sheltered areas along the Swedish coast north of Kalmar.

Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund, and Drammensfjord.

and outside the Finnish coast there is mostly very open ice.

With temperatures around 0 °C, but dropping to light frost, and varying, mostly light breeze no larger changes to the ice distribution are expected.

brash ice barrier at the ice edge. Else at sea there is mostly very open ice.

With temperatures around 0°C and a mostly light breeze no larger change is expected.

cally ice free. North of about 63°00' N towards the Quark there is very close, 10–40 cm thick ice outside the western coast.

With temperatures around 0°C and a mostly light breeze no larger change is expected.

the Åland Islands. In the Åland Sea there is 5–20 cm thick fast or level ice in bays along the coast.

With temperatures around 0 °C and a mostly light breeze no larger change is expected.

With temperatures above 0 °C during day and light frost at night no larger changes are expected.

east there is 10–35 cm thick and in placed ridged ice reaching out to about the line Porvoo lighthouse – Kotka lighthouse and further east to Stirsudden. In the southeastern part there is open water at sea. In Lake Saimaa there is 30–50 cm thick ice.

With mostly light frost and a fresh breeze from the east some ice formation may occur and the ice drifts westwards.

ice to about the line Lindi – Tahkuranna and further out there is very close ice to the line Sorgu shoal – Rannametsa. Irben Strait is ice-free.

With temperatures above 0 °C during day and light frost at night no larger changes are expected.

With temperatures above 0 °C some ice melt is expected.

With temperatures above 0 °C and light frost possible during the night, some ice melt but overall no larger change is expected.

Swedish Lakes

In Lake Vänern 5–20 cm thick fast ice is present in places at the coasts. In the Dalbosjön there is 5–20 cm thick, very close drift ice in the northern part. Else it is practically ice free at sea.

With temperatures above 0 °C and light frost possible during the night, some ice melt but overall no larger change is expected.

Dr. J. Holfort

Restrictions to Navigation

| | Harbour/District | At least dwt/hp/kW | Ice Class | Begin |
|----------------|--|---------------------------|--------------------------------|--------------|
| Estonia | Pärnu | 1800 kW | 1B (Lloyd's) | 27.01. |
| | Kunda and Sillamäe | 1200 kW | II (Lloyd's) | 04.02. |
| Finland | Tornio, Kemi and Oulu | 2000/4000 dwt | IA Super (2000 t)/ IA (2000 t) | 27.02. |
| | Vaasa | 2000 dwt | IA | 10.01. |
| | Raahe, Kalajoki, Kokkola and Pietarsaari | 4000 dwt | IA | 13.01. |
| | Pori | 2000 dwt | IB | 17.02. |
| | Rauma | 2000 dwt | IB | 14.02. |
| | Kaskinen and Kristiinankaupunki | 2000 dwt | IA | 17.02. |
| | Uusikaupunki | 2000 dwt | IA | 11.02. |
| | Eckerö, Maarianhamina and Langnäs | 2000 dwt | II | 13.01. |
| | Naantali and Turku | 2000 dwt | I | 23.01. |
| | Mussalo | 2000 dwt | IB | 29.01. |
| | Helsinki and Sköldvik | 2000 dwt | I | 29.01. |
| | Koverhar, Lappohja, Inkoo and Kantvik | 2000 dwt | I | 13.01. |
| | Taalintehdas and Förby | 2000 dwt | IB | 17.02. |
| | Hanko | 2000 dwt | II | 13.01. |
| | Loviisa, Kotka and Hamina | 2000 dwt | IB | 29.01. |
| | Lake Saimaa | 2000 dwt | IA | 08.01. |
| Saimaa Canal | 2000 dwt | IA | 08.01. | |
| Russia | Vyborg | - | Ice 1 | 30.12. |
| | Vysotsk | - | Ice 1 | 30.12. |
| | Primorsk | - | Ice 1 | 01.02. |
| | Ust-Luga | - | Ice 1 | 29.12. |
| Sweden | Karlsborg | 4000 dwt | IA (2000 t) | 14.01. |
| | Lulea, Haraholmen and Skelleftehamn | 4000 dwt | IA | 14.01. |
| | Rundvik, Husum and Örnköldsvik | 2000 dwt | IA | 19.02. |
| | Holmsund | 2000 dwt | IA | 17.02. |
| | Angermanälven | 2000 dwt | IA | 17.02. |
| | Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär and Öregrund | 2000 dwt | IC | 26.02. |
| | Härnösand, Söråker and Sundsvall | 2000 dwt | IB | 26.02. |
| | Hargshamn | 2000 dwt | IC | 04.01. |

| | | | |
|-------------------------------|----------|----|--------|
| Hallstavik and Grisslehamn | 2000 dwt | IC | 04.01. |
| Kappelskär and Nynäshamn | 2000 dwt | II | 04.01. |
| Köping and Västerås | 2000 dwt | IC | 26.02. |
| Balsta | 2000 dwt | IC | 26.02. |
| Stockholm and Södertälje | 2000 dwt | II | 04.01. |
| Trollhätte Canal and Göta Älv | 2000 dwt | II | 23.02. |
| Vänern | 2000 dwt | IC | 26.02. |

Estonia

Icebreaker: EVA-316 assists to the port of Pärnu. BOTNICA assists to the ports of Kunda and Sillamäe.

Finland/Sweden

The traffic separation schemes in the Lake Vänern are temporarily out of use from 12 January due to ice conditions.

The transit traffic west of Holmöarna is temporarily prohibited.

Öregrundsgrepen: Transit traffic for low powered vessels is not recommended.

The traffic separation schemes in the Quark are temporarily out of use from 20 December due to ice conditions.

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: YMER, ODEN, FREJ, POLARIS, SISU, KONTIO and URHO assist in the Bay of Bothnia. ATLE and OTSO assist in the southern Bay of Bothnia and in the Quark. FENNICA and BRAGE VIKING assist in the Quark. ZEUS and CALYPSO assist in the Sea of Bothnia. VOIMA and NORDICA assist the Gulf of Finland. ALE assists in the Vänern.

Norway

Kilsfjorden (Kragerø) and Hellefjorden (Kragerø): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (08.01.24)

Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga. Barge towed by tug not allowed to navigate in ice.

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

Baltic Sea Ice Code

| | |
|--|--|
| <p>First number:</p> <p>A_B Amount and arrangements of sea ice</p> <p>0 Ice free</p> <p>1 Open water – concentration less than 1/10</p> <p>2 Very open ice - concentration 1/10 to 3/10</p> <p>3 Open ice – concentration 4/10 to 6/10</p> <p>4 Close ice – concentration 7/10 to 8/10</p> <p>5 Very close ice – concentration 9/10 to 9+/10</p> <p>6 Compact ice, including consolidated ice – concentration 10/10</p> <p>7 Fast ice with drift ice outside</p> <p>8 Fast ice</p> <p>9 Lead in very close or compact drift ice or along the fast ice edge</p> <p>/ Unable to report</p> <p>Third number:</p> <p>T_B Topography or form of ice</p> <p>0 Pancake ice, ice cakes, brash ice – less than 20 m across</p> <p>1 Small ice floes – 20 to 100 m across</p> <p>2 Medium ice floes – 100 to 500 m</p> <p>3 Big ice floes – 500 to 2000 m across</p> <p>4 Vast or giant ice floes – more than 2000 m across – or level ice</p> <p>5 Rafted ice</p> <p>6 Compact slush or shuga, or compacted brash ice</p> <p>7 Hummocked or ridged ice</p> <p>8 Thaw holes or many puddles on the ice</p> <p>9 Rotten ice</p> <p>/ No information or unable to report</p> | <p>Second number:</p> <p>S_B Stage of ice development</p> <p>0 New ice or dark nilas (less than 5 cm thick)</p> <p>1 Light nilas (5 - 10 cm thick) or ice rind</p> <p>2 Grey ice (10 - 15 cm thick)</p> <p>3 Grey-white ice (15 - 30 cm thick)</p> <p>4 White ice, first stage (30 - 50 cm thick)</p> <p>5 White ice, second stage (50 - 70 cm thick)</p> <p>6 Medium first year ice (70 - 120 cm thick)</p> <p>7 Ice predominantly thinner than 15 cm with some thicker ice</p> <p>8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice</p> <p>9 Ice predominantly thicker than 30 cm with some thinner ice</p> <p>/ No information or unable to report</p> <p>Fourth number:</p> <p>K_B Navigation conditions in ice</p> <p>0 Navigation unobscured</p> <p>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</p> <p>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</p> <p>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</p> <p>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</p> <p>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</p> <p>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</p> <p>7 Icebreaker assistance can only be given to vessels after special permission</p> <p>8 Navigation temporarily closed</p> <p>9 Navigation has ceased</p> <p>/ Unknown</p> |
|--|--|

Estonia, 04.03.2024

Paernu, port and bay 7475

Moonsund 7353

Finland, 04.03.2024

Röyttä – Etukari 8546

Etukari – Ristinmatala 7476

Ajos – Ristinmatala 7476

Ristinmatala – Kemi 2 5476

Kemi 2 – Kemi 1 5476

Sea area SW of Kemi 1 5476

Kemi 2 – Ulkokrunni – Virpiniemi 7476

Oulu harbours – Kattilankalla 8446

Kattilankalla – Oulu 1 7476

Sea area SW of Oulu 1 5476

High Sea N of the latitude of Marjaniemi 5476

Rahe harbour – Heikinkari 8446

Heikinkari – Raahe lighthouse 6856

Raahe lighthouse – Nahkiainen 5476

Latitude Marjaniemi – Ulkokalla, Sea 5476

Rahja harbour – Välimatala 7476

Vaelimatala to line Ulkokalla – Ykskivi 5476

Sea betw. lat. of Ulkokalla –Pietarsaari 5476

Ykspihlaja – Repskär 7476

Repskär – Kokkola lighthouse 5476

Sea area off Kokkola lighthouse 2326

Pietarsaari – Kallan 8446

Sea area off Kallan 2326

Sea lat. Pietarsaari – NE Nordvalen 5356

Sea area ENE of Nordvalen 5876

Sea area Nordvalen to W of Norrskär 5876

Vaskiluoto – Ensten 8446

Ensten – Vaasa lighthouse 5356

Vaasa lighthouse – Norrskär 5356

Sea area SW of Norrskär 5876

Kaskinen – Sälgrund 8446

Sea area off Sälgrund 7356

High sea from N to latitude Yttergrund 1306

Pori harb. to line Pori lighth. – Säppi 7366

Sea W of line Pori lighthouse – Säppi 1306

High sea betw. lat. Yttergrund a. Rauma 1306

Rauma, Harbour – Kymäpihlaja 8846

Kymäpihlaja – Rauma lighthouse 1306

Sea area W of Rauma lighthouse 1306

The high sea S of the latitude of Rauma 1306

Uusikaupunki harbour – Kirsta 8846

Kirsta – Isokari 7756

Isokari – Sandbäck 1306

Sea area off Sandbäck 1306

Sea area N of Sälskär 5145

Naantali and Turku – Rajakari 8846

Rajakari – Lövskär 8846

Lövskär – Korra 8846

Korra – Isokari 5756

Lövskär – Berghamn 8346

Berghamn – Stora Sottunga 5146

| | | | |
|--|-------|------------------------------------|------|
| Stora Sottunga – Ledskär | 8746 | Umeå – Väktaren | 5476 |
| Lövsjär – Grisselborg | 7346 | SE of Väktaren | 5476 |
| Grisselborg – Norparskär | 5346 | NE and SE of Sydostbrotten | 5462 |
| Hanko – Vitgrund | 8342 | Fairway to Husum | 5476 |
| Vitgrund – Utö | 5145 | Örnsköldsvik – Hörnskatan | 8446 |
| Koverhar – Hästö Busö | 8346 | Hörnskatan – Skagsudde | 8446 |
| Inkoo a. Kantvik – sea area Porkkala | 7356 | Sea area off Skagsudde | 5476 |
| Helsinki harbours – Harmaja | 7356 | Fairway W of Ulvöarna | 8446 |
| Harmaja – Helsinki lighthouse | 5356 | Sea area E of Ulvöarna | 5466 |
| Fairway Helsinki – Porkkala – Rönnskär | 5356 | Ångermanälven north Sandö Bridge | 8444 |
| Vuosaari harbour – Eestiluoto | 5356 | Ångermanälven south Sandö Bridge | 8444 |
| Eestiluoto – Helsinki lighthouse | 5356 | Härnösand – Härnön | 8444 |
| Porvoo harbours – Varlax | 7356 | Sundsvall – Draghällan | 4436 |
| Varlax – Porvoo lighthouse | 5356 | Draghällan – Åstholmsudde | 1406 |
| Valko Harbour – Tåktarn | 7346 | Hudiksvallfjärden | 8346 |
| Archipelago fairway Boistö – Glosholm | 5356 | Iggesund – Agö | 8346 |
| Archipelago fairway Glosholm–Helsinki | 7356 | Sandarne – Hällgrund | 8346 |
| Kotka – Viikari | 8346 | Ljusnefjärden – Storjungfrun | 8346 |
| Viikari – Orregrund | 5356 | Gävle – Eggegrund | 8346 |
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| Tiiskeri – Kalbådagrund | 5356 | Hallstavik – Svartklubben | 8346 |
| Hamina – Suurmusta | 8446 | Trälhavet – Furusund – Kapellskär | 1006 |
| Suurmusta – Merikari | 7346 | Stockholm – Trälhavet – Klövholmen | 1006 |
| Merikari – Kaunissaari | 5346 | Klövholmen – Sandhamn | 1006 |
| Norway, 04.03.2024 | | Trollharan – Langgarn | 1006 |
| Svinesund – Halden | 33// | Köping – Kvicksund | 8344 |
| Drammensfjord | 2201 | Västerås – Grönsö | 8344 |
| Tønsberg, inner harbour | 82/3 | Grönsö – Södertälje | 8344 |
| Vestfjord (Tønsberg) | 6963 | Stockholm – Södertälje | 8344 |
| Larviksfjorden (Stavern – Larvik) | 121// | Södertälje – Fifong | 4234 |
| Russian Federation, 04.03.2024 | | Norrköping – Hargökalv | 1000 |
| Port of St. Petersburg | 89// | Västervik – Marsholmen – Idö | 4232 |
| St. Petersburg – E-point island Kotlin | 89// | Fairway through Lurö archipelago | 3356 |
| E-point Kotlin – long. lighth. Tolbuhkin | 89// | Fairway to Gruvön | 8346 |
| Lighth. Tolbuhkin – lighth. –Šepelevskij | 22// | Fairway to Karlstad | 8346 |
| Lighthouse Šepelevskij – island Sescar | 10// | Fairway to Kristinehamn | 8346 |
| Island Sescar – Island Sommers | 10// | Fairway to Otterbäcken | 8346 |
| Vyborg, port and bay | 89// | | |
| Island Vichrevoj – Island Sommers | 53// | | |
| Strait Bjerkesund | 89// | | |
| E-point Bol'šoj Ber'ozovyj – Šepelevskij | 53// | | |
| Sweden, 04.03.2024 | | | |
| Karlsborg – Malören | 8546 | | |
| Sea area off Malören | 5576 | | |
| Luleå – Björnklack | 8546 | | |
| Björnklack – Farstugrunden | 5576 | | |
| E and SE of Farstugrunden | 5576 | | |
| Sandgrönn fairway | 8546 | | |
| Rödkallen – Norströmsgrund | 5456 | | |
| Haraholmen – Nygrån | 8546 | | |
| Sea area off Nygrån | 5456 | | |
| Skelleftehamn – Gåsören | 8446 | | |
| Sea area off Gåsören | 5456 | | |
| Sea area off Bjuröklubb | 1406 | | |
| NE of Nordvalen | 2426 | | |
| SW of Nordvalen | 2426 | | |
| Western Quark (W of Holmöarna) | 5476 | | |