

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

# Eisbericht Nr. 14 Amtsblatt des BSH

Jahrgang 96 Nr. 14

Thursday, 15.12.2022

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## Übersicht

In den Schären der Bottenwiek befindet sich bis 20cm dickes Festeis und weiter außerhalb kommt Neueis vor. In Norra Kvarken, der Bottensee, dem Schärenmeer und dem Mälarsee kommt in geschützten Gebieten Neueis und dünnes Eis vor. Im Finnischen Meerbusen kommt in den östlichsten Buchten bis 20cm dickes Festeis, außerhalb davon und in geschützten Buchten entlang der Küsten kommt Neueis vor. Im Nordosten des Rigaischen Meerbusen befindet sich dünnes ebenes Eis oder Neueis entlang der Küsten und der Bucht von Pärnu. Weiter südlich, bis hin zur westlichen Ostsee, kommt örtlich Neueis vor.

## **Overview**

In the archipelagos of the Bay of Bothnia there is up to 20cm thick fast ice and new ice is present further out. In the Quark, the Sea of Bothnia, the Archipelago Sea and Lake Mälaren, there is thin and new ice in sheltered bays. In the Gulf of Finland, there is up to 20cm thick fast ice in the easternmost bays. Outside the fast ice and in sheltered places along the coasts there is new ice. In the northeastern Gulf of Riga thin level ice or new ice is present along the coasts and in the Bay of Pärnu. Further south, all the way to the western Baltic, there is new ice and new ice formation in sheltered areas.

## **Bay of Bothnia**

In the archipelagos of the northern Bay of Bothnia, there is 5–20 cm thick fast or level ice. There is 5– 15 cm thick fast ice between Hailuoto and Oulu. Further out, there is new ice and new ice formation up to 15-20nm away from the coast. New ice is

## The Quark

There is 3-10cm thick level ice and new ice in the inner bays and archipelagos. On the Finnish side some new ice and ice formation is present also

## Sea of Bothnia

New ice is present in places in the inner archipelagos along the Finnish coast. On the upper part of Angermanälven, there is 3–10 cm thick level ice and new ice is present in the lower part. present along the shores of the southern bay. With temperatures down to -15°C along the shores, somewhat higher at sea, further ice grow and ice formation is expected. The ice will drift slowly towards the east.

further out. Further ice formation and ice growth will take place during the next days.

Temperatures down to -10°C at the coasts will lead to new ice formation and ice growth during the next days.

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

© BSH - Alle Rechte vorbehalten Nachdruck, auch auszugsweise, verboten **Eisauskünfte / Ice Information** Telefon: +49 (0) 381 4563 -780 Telefax: +49 (0) 381 4563 -949 E-Mail: ice@bsh.de

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## Archipelago Sea

New ice is present in sheltered inner bays. New ice

#### **Northern Baltic**

In Lake Mälaren 3-8cm thick level ice is present in in the western part and else new ice sheltered

#### **Gulf of Finland**

Very close grey ice is present east of the island Kotlin, further out to the longitude of lighthouse Šepelevskij there is new ice. In the top of Vyborg Bay, there is 10–20 cm thick fast ice and in the entrance there is open new ice. In places along the norther coast and in sheltered places along the

## Gulf of Riga

There is level ice along the coast and new ice and very close nilas on the fairways of Väinameri. In the Bay of Pärnu, there is a narrow belt of 5–10 cm thick fast ice along the coast and further out very

## **Central Baltic**

New ice and new ice formation in some sheltered

#### **Southeastern Baltic**

In the Curonian laggon as well as in the Vistula lagoon there is new ice and new ice formation. Ice

#### Western Baltic

New ice and light Nilas in some sheltered areas.

## **Skagerrak and Kattegat**

New ice and new ice formation in some sheltered areas. Thicker, up to 10cm thick ice is present in

## **Swedish Lakes**

New ice and thin level ice is present in some sheltered areas. Ice formation is expected the next

## **North Sea**

Ice formed on the Wadden at low tide drifts at sea

Dr. J.Holfort

formation is expected during the next days.

places. New ice formation is expected.

southern coast, there is new ice. On Lake Saimaa, there is 5–20 cm thick ice as well as new ice in places.

New ice formation and ice growth is expected with an northeastward drift.

close light nilas to the about 58°08'N. Further south open water with new ice in places. Further new ice formation will take place.

areas. Ice formation expected the next days.

formation expected the next days.

Ice formation expected the next days.

some Norwegian fjords near Halden, Moss and Tønsberg. Ice formation expected the next days.

days.

at high tide. Ice formation expected the next days.

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Finland	Tornio and Kemi	2000 dwt		01.12.
	Oulu	2000 dwt	II	12.12.
	Lake Saimaa and Saimaa Canal	2000 dwt	11	12.12.
Sweden	Karlsborg and Lulea	2000 dwt		05.12.
	Haraholmen and Skelleftehamn	2000 dwt	II	12.12.
	Angermanälven	1300/2000 dwt	IC/II	14.12.
	Köping	1300/2000 dwt	IC/II	17.12.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	17.12.
	Vänern	1300/2000 dwt	IC/II	17.12.

#### **Restrictions to Navigation**

## Estonia

#### Icebreakers:

EVA-316 assists in the port of Pärnu.

## 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:

OTSO assists in the Bay of Bothnia.

## 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: As Amount and arrangements of sea ice 0 lce 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 lce edge / Unable to report	Second number: <b>S</b> <sub>B</sub> 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
Third number: <b>T</b> <sub>B</sub> <b>Topography or form of ice</b> 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	<ul> <li>Fourth number:</li> <li>K<sub>B</sub> Navigation conditions in ice</li> <li>0 Navigation unobscured</li> <li>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</li> <li>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</li> <li>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</li> <li>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</li> <li>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</li> <li>7 Icebreaker assistance can only be given to vessels after after special permission</li> <li>8 Navigation temporarily closed</li> <li>9 Navigation has ceased</li> <li>/ Unknown</li> </ul>

# Estonia , 15.12.2022

2010111212022	
Paernu, port and bay	5113
Moonsund	5112

# Finland , 15.12.2022

Röyttä – Etukari	8745
Etukari – Ristinmatala	7745
Ajos – Ristinmatala	5145
Ristinmatala – Kemi 2	4045
Kemi 2 – Kemi 1	2005
Kemi 2 – Ulkokrunni – Virpiniemi	5245
Oulu harbours – Kattilankalla	8245
Kattilankalla – Oulu 1	5145
Sea area SW of Oulu 1	4045
High Sea N of the latitude of Marjaniemi	2005
Raahe harbour – Heikinkari	5142
Heikinkari – Raahe lighthouse	3001
Raahe lighthouse – Nahkiainen	3001
Rahja harbour – Välimatala	3001
Ykspihlaja – Repskär	5142
Repskär – Kokkola lighthouse	3001
Pietarsaari – Kallan	3001
Vaskiluoto – Ensten	5142
Kaskinen – Sälgrund	3001
Pori harb. to line Pori lighth. – Säppi	2000
Uusikaupunki harbour – Kirsta	3001
Helsinki harbours – Harmaja Vuosaari harbour – Eestiluoto	1000
Vuosaan harbour – Eestiluoto Valko Harbour – Täktarn	1000
Kotka – Viikari	3001
Hamina – Suurmusta	5042 4042
Suurmusta – Merikari	2000
Suumusta – Merikan	2000
Germany . 15.12.2022	
<b>Germany , 15.12.2022</b> Flensburg – Holnis	1000
<b>Germany , 15.12.2022</b> Flensburg – Holnis	1000
	1000
Flensburg – Holnis	1000 1000
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway	
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway	1000
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway	1000 1000
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022	1000 1000 1000
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden	1000 1000 1000 31//
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022	1000 1000 1000 31// 4112
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord	1000 1000 1000 31// 4112 1010
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour	1000 1000 1000 31// 4112 1010 8101
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord	1000 1000 1000 31// 4112 1010
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø)	1000 1000 1000 31// 4112 1010 8101
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022	1000 1000 1000 31// 4112 1010 8101 8143
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg	1000 1000 31// 4112 1010 8101 8143
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin	1000 1000 31// 4112 1010 8101 8143 52/2 52/2
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001 20/0
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij Vyborg, port and bay	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001 20/0 83/2
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001 20/0
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij Vyborg, port and bay Island Vichrevoj – Island Sommers	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001 20/0 83/2
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij Vyborg, port and bay Island Vichrevoj – Island Sommers Sweden , 14.12.2022	1000 1000 31// 4112 1010 8101 8143 52/2 52/2 3001 20/0 83/2
Flensburg – Holnis Latvia , 15.12.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway Irben Strait, fairway Norway , 14.12.2022 Svinesund – Halden Mossesund Drammensfjord Tønsberg, inner harbour Skåtøysund (Kragerø) Russian Federation , 15.12.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij Vyborg, port and bay Island Vichrevoj – Island Sommers	1000 1000 31// 4112 1010 8101 8101 8143 52/2 52/2 3001 20/0 83/2 2000

Rödkallen – Norströmsgrund 4046	
Haraholmen – Nygrån 4046	
Skelleftehamn – Gåsören 4046	
Umeå – Väktaren 4041	
Örnsköldsvik – Hörnskaten 4041	
Ångermanälven north Sandö Bridge 5244	
Ångermanälven south Sandö Bridge 5244	
Iggesund – Agö 4041	
Gävle – Eggegrund 5041	
Köping – Kvicksund 5142	
Västerås – Grönsö 5142	
Norrköping – Hargökalv 5041	
Fairway to Gruvön 4041	
Fairway to Karlstad 4041	
Fairway to Kristinehamn 4041	