

# Eisbericht Nr. 29

## Amtsblatt des BSH

Jahrgang 95

Nr. 29

Friday, 07.01.2022

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### Übersicht

In der nördlichen Bottenwiek liegt in den Schären 20–35 cm dickes Festeis. Weiter außerhalb treibt nördlich von etwa 64°40' N dünnes ebenes Eis und im zentralen Teil bis 15 cm dickes Treibeis. In der südlichen Bottenwiek und Norra Kvarken liegt in den Schären bis zu 30 cm dickes Festeis. Weiter außerhalb und auf See in Norra Kvarken kommt bis 15 cm dickes, lockeres bis sehr dichtes Treibeis vor. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes ebenes Eis und etwas weiter außerhalb kommt Neueis vor. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten Festeis. Im östlichen Teil treibt auf See lockeres Eis oder Neueis. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht. Neueis oder dünnes, ebenes Eis kommt in der nördlichen Ostsee und dem Vänern vor. Neueis kommt in geschützten Buchten der zentralen Ostsee und der südöstlichen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt Neueis oder Festeis.

### Overview

In the northern Bay of Bothnia, there is 20–35 cm thick fast ice in the archipelagos. Further out and north of ~64°40' N, there is thin level ice and up to 15 cm thick drift ice in the central part. In the southern Bay of Bothnia and Norra Kvarken, there is up to 30 cm thick fast ice in the archipelagos. Further out and at sea in Norra Kvarken, there is open to very close, up to 15 cm thick drift ice. Along the coasts of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice and new ice further out. In the Gulf of Finland, there is fast ice along the northern coast and in the easternmost part. At sea in the east, there is open ice and new ice. In the Gulf of Riga, there is up to 25 cm thick ice in Moonsund and Pärnu Bay. New ice and thin level ice occurs at places in the northern Baltic and Lake Vänern. New ice occurs in sheltered areas of the central Baltic and the southeastern Baltic. Fast ice or new ice is present in some inner fjords of the Skagerrak.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 20–35 cm thick fast ice, from the Finnish coast reaching out to Hebe and Kattilankalla. Off the fast ice in the east, there is 10–30 cm thick consolidated ice to Kemi-2 and Oulu-3. Further out to about 23°30' E, there is 2-10 cm thick level ice, ridged in places. Off the fast ice in the west, there is first 2-8 cm thick level ice. In the central part north of about 64°40' N, there is 2-10 cm thick ice

of varying concentration. In the southern Bay of Bothnia, there is 10–30 cm thick fast ice in the archipelagos. Further out in the east from Nahkiainen to Kokkola, there is close 5-20 cm thick ice and very open ice further south. In the west, there is mostly close to very close, 2–15 cm thick ice to about 21°45' E.

Over the weekend, ice formation and growth is expected. The ice drift is first to the south, on Sat-

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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urday to the northwest/north and on Sunday again in southwesterly directions.

### Norra Kvarken

In the archipelagoes off Vaasa, there is 10–35 cm thick fast ice to Ensten. Further out to Vaasa lighthouse there is thin very close ice. Along the Swedish coast, there is 10–20 cm thick fast in the inner archipelagos. At sea, there is 2–15 cm thick open

### Sea of Bothnia

On Ångermanälven, there is 15–35 cm thick fast ice in the upper part and 5–20 cm level ice in the lower part. Else, there is 10–25 cm fast ice or thin level ice in the archipelagos and bays. Further out

### Archipelago and Åland Sea

Thin level ice is present in inner archipelagos of the coasts. Else, there is new ice in the archipelagos.

### Gulf of Finland

From St. Petersburg up to the dike, there is 20–30 cm thick fast ice. Farther out, there is first 15–25cm thick, very close ice to about 29°30'E followed by 5–10cm thick open ice. In the Bay of Vyborg, there is 20–30 cm fast ice. In the Bjerkesund, there is fast ice or thin level ice. In the archipelagos of the northern coast, there is 10–30 cm fast ice and thin level ice further out. At sea, there is

### Gulf of Riga

In Moonsund, there is very close, 10–25 cm thick ice. In the central part, there is very open to close ice and ice formation. At the south coast of Saaremaa, there is thin level ice and very open ice further out. In Pärnu Bay, there is 10–25 cm thick

### Northern Baltic

In Lake Mälaren, there is 10–20 cm thick fast ice or level ice in the western part. The central part is mostly ice free and in sheltered bays further east,

### Central Baltic

New ice occurs in some sheltered bays along the Swedish coast.

### Southeastern Baltic

In the Curonian Lagoon, there is very close ice in the eastern part. In the Vistula Lagoon, there is thin ice in places.

### Southern Baltic

In the Szczecin Lagoon, rest ice is present in a few places along the northern shore.

### Skagerrak and Kattegat

In some inner fjords of the Skagerrak, there is fast ice, up to 30 cm thick at a few places, and new ice at places. Else, it is mostly ice free.

and very close ice

Over the weekend, ice formation and growth is expected. The ice drift is first to the south, on Saturday to the northwest/north and on Sunday again in southwesterly directions.

along the Finnish coast, there is a thin belt of new ice or thin close ice.

Some ice formation and ice growth is expected the coming days.

No larger changes are expected over the weekend.

open, 3–10 cm thick ice or new ice east of 27°50' E. At the southern coast, new ice is present Narva Bay and in places near the shore. In Lake Saimaa and the Saimaa Canal, there is 15–35 cm thick ice. Over the weekend, ice formation and ice growth is expected and the ice drift is first to the southeast and later in northerly directions.

fast ice or very close ice to Kihnu.

Over the weekend, some new ice formation in the north and the ice drift is mostly in northerly directions.

there is thin level or new ice. Along the Swedish coast, there is new ice or shuga in some sheltered bays. No major changes the coming days.

No major changes are expected.

No larger changes are expected over the weekend.

Ice melt continues.

Over the weekend, some ice formation is expected in the northern fjords, else no larger changes are expected.

**Swedish Lakes**

New ice as well as thin level ice is present in sheltered bays of Lake Vänern. Along the northern

coast, there is 5–20 cm thick fast ice.

No major change is expected over the weekend.

Dr. W. Aldenhoff

**Restrictions to Navigation**

	<b>Harbour/District</b>	<b>At least dwt/hp/kW</b>	<b>Ice Class</b>	<b>Begin</b>
<b>Estonia</b>	Pärnu	1600 kW	1C	17.12.
<b>Finland</b>	Tornio, Kemi, Oulu and Raahe	2000 dwt	IB	25.12.
	<b>Tornio, Kemi and Oulu</b>	<b>2000 dwt</b>	<b>IA</b>	<b>11.01.</b>
	Kokkola and Vaasa	2000 dwt	I	22.12.
	<b>Kokkola</b>	<b>2000 dwt</b>	<b>IB</b>	<b>11.01.</b>
	Kalajoki and Pietarsaari	2000 dwt	I	25.12.
	<b>Kalajoki and Pietarsaari</b>	<b>2000 dwt</b>	<b>IB</b>	<b>11.01.</b>
	Kaskinen, Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali, Turku, Taalintehdas, Förby, Koverhar, Lappohja, Inkoo, Kantvik, Helsinki and Sköldvik	2000 dwt	II	01.01.
	Loviisa and Kotka	2000 dwt	I	04.01.
	Hamina	2000 dwt	I	01.01.
	Mussalo	2000 dwt	II	25.12.
	Lake Saimaa and Saimaa Canal	2000 dwt	IB	06.01.
<b>Russia</b>	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	27.12.
	<b>Primorsk</b>	-	<b>Ice 1</b>	<b>12.01.</b>
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
<b>Sweden</b>	Karlsborg and Luleå	2000 dwt	IB	06.01.
	Haraholmen and Skelleftehamn	2000 dwt	IB	06.01.
	Holmsund, Rundvik and Husum	2000 dwt	II	22.12.
	Örnsköldsvik	2000 dwt	II	22.12.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand- Skutskär	2000 dwt	II	22.12.
	Köping and Västerås	2000 dwt	IC	27.12.
	Bålsta	1300/2000 dwt	IC/II	27.12.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	03.01.
	Vänern	1300/2000 dwt	IC/II	03.01.

**Information of the Icebreaker Services****Estonia**

**Icebreaker:** EVA-316 assists to 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 78. 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, KONTIO, URHO, FREJ and YMER assist in the Bay of Bothnia. ALE and ZEUS assist in the Quark and SISU in the eastern Gulf of Finland. PROTECTOR and METEOR assist in the northern Lake Saimaa. CALYPSO assists in the southern Lake Saimaa and the Saimaa Canal.

**Norway**

Husøysund, Tønsberg indre havn and Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (28.12.21)

Langårsund and Hellefjorden (Kragerø): Navigation temporarily closed. (27.12.21)

**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**

<p>First number:</p> <p><b>A<sub>B</sub> Amount and arrangements of sea ice</b></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><b>T<sub>B</sub> Topography or form of ice</b></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><b>S<sub>B</sub> Stage of ice development</b></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><b>K<sub>B</sub> Navigation conditions in ice</b></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>
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**Estonia, 07.01.2022**

Shipping route from Narva-Jõssuu	30/1
Kunda, port and bay	20/0
Muuga, port and bay	1//0
Tallinn, port and bay	1//0
Paernu, port and bay	7345
Moonsund	52/2

**Finland, 07.01.2022**

Roeyttae – Etukari	8346
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Etukari – Ristinmatala	8346
Ajos – Ristinmatala	8346
Ristinmatala – Kemi 2	5746
Kemi 2 – Kemi 1	5246
Sea area SW of Kemi 1	5746
Kemi 2 – Ulkokrunni – Virpiniemi	7346
Oulu harbours – Kattilankalla	8346
Kattilankalla – Oulu 1	6346
Sea area SW of Oulu 1	5756
High Sea N of the latitude of Marjaniemi	5746

Raahe harbour – Heikinkari	7346	Bjoernklack – Farstugrunden	5146
Heikinkari – Raahe lighthouse	5746	E and SE of Farstugrunden	4136
Raahe lighthouse – Nahkiainen	5146	Sandgroenn fairway	8446
Latitude Marjaniemi – Ulkokalla, Sea	3726	Roedkallen – Norstroemsgrund	5146
Rahja harbour – Välimatala	6366	Haraholmen – Nygrån	8446
Vaelimatala to line Ulkokalla – Ykskivi	4746	Sea area off Nygrån	5146
Sea betw. lat. of Ulkokalla –Pietarsaari	2006	Skelleftehamn – Gåsoeren	5236
Ykspihlaja – Repsaer	7366	Sea area off Gåsoeren	5236
Repskaer – Kokkola lighthouse	5166	Sea area off Bjuroeklubb	5236
Sea area off Kokkola lighthouse	2016	NE of Nordvalen	2226
Pietarsaari – Kallan	7766	SW of Nordvalen	2226
Sea area off Kallan	2016	Western Quark (W of Holmoearna)	8246
Sea lat. Pietarsaari – NE Nordvalen	5146	Umeå – Vaektaren	2226
Sea area ENE of Nordvalen	3126	SE of Vaektaren	2226
Sea area Nordvalen to W of Norrskaer	3126	Oernskoeldsvik – Hoernskaten	5246
Vaskiluoto – Ensten	8346	Ångermanaelven north Sandoe Bridge	8444
Ensten – Vaasa lighthouse	5246	Ångermanaelven south Sandoe Bridge	8444
Vaasa lighthouse – Norrskaer	3126	Haernoessand – Haernoen	5244
Kaskinen – Sälgrund	4745	Sundsvall – Draghaellan	8346
Sea area off Sälgrund	4145	Draghaellan – Åstholmsudde	5046
Pori harb. to line Pori lighth. – Säppi	2005	Hudiksvallfjaerden	5246
Rauma, Harbour – Kymäpihlaja	5745	Iggesund – Agoe	5246
Kymäpihlaja – Rauma lighthouse	2005	Sandarne – Haellgrund	5146
Uusikaupunki harbour – Kirsta	5245	Gaevla – Eggegrund	5146
Kirsta – Isokari	4245	Oeregrundsgrepen	2121
Naantali and Turku – Rajakari	1005	Hallstavik – Svartklubben	5142
Koverhar – Hästö Busö	1005	Koeping – Kvicksund	8344
Inkoo a. Kantvik – sea area Porkkala	5745	Västerås – Grönsö	8344
Helsinki harbours – Harmaja	5145	Grönsö – Södertälje	5144
Fairway Helsinki – Porkkala – Rönnskär	2005	Stockholm – Södertälje	5244
Vuosaari harbour – Eestiluoto	5145	Norrköping – Hargökalv	4041
Porvoo harbours – Varlax	5245	Karlskrona – Aspö	2020
Valko Harbour – Täktarn	7746	Fairway to Karlshamn	2020
Archipelago fairway Boistö – Glosholm	4245	Uddevalla – Stenungsund	4041
Archipelago fairway Glosholm–Helsinki	7245	Vänernborgsviken	2024
Kotka – Viikari	5246	Fairway to Karlstad	8344
Viikari – Orregrund	4246	Fairway to Kristinehamn	8344
Orregrund – Tiiskeri	3006	Fairway to Otterbäcken	2024
Hamina – Suurmusta	8346		
Suurmusta – Merikari	4006		
Merikari – Kaunissaari	4006		

**Russian Federation, 07.01.2022**

Port of St. Petersburg	63/3
St. Petersburg – E-point island Kotlin	83/3
E-point Kotlin – long. lighth. Tolbuhkin	83/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	3222
Lighthouse Šepelevskij – island Sescar	3001
Island Sescar – Island Sommers	3001
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	40/2
Strait Bjerkesund	40/2
E-point Bol'šoj Ber'ozovyj –Šepelevskij	41/2
Luga bay	1000
Appr. Luga bay – line Mo.–epel.	2001

**Sweden, 07.01.2022**

Karlsborg – Maloeren	8446
Sea area off Maloeren	5046
Luleå – Bjoernklack	8446