



# Eisbericht Nr. 35

## Amtsblatt des BSH

Jahrgang 95

Nr. 35

Monday, 17.01.2022

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### Übersicht

In den Schären der Bottenwiek liegt im Norden 20–50 cm dickes Festeis und im Süden 10–30 cm dickes Festeis. Auf See befindet im Norden und Nordosten sehr dichtes, 10–40 cm dickes, aufgepresstes Eis in dem Eisdruck herrscht. Ansonsten außerhalb des Festeises örtlich lockerem bis dichtem Treibeis, an der Eiskante im Osten liegt festgestampftes Eis. In Norra Kvarken liegt in den Schären bis zu 35 cm dickes Festeis und auf See kommt zumeist Neueis vor. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes ebenes Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 35 cm dickes Festeis. Im östlichen Teil treibt auf See sehr dichtes, 10–20 cm dickes Eis. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht. Neueis oder dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, dem Vänern und der südöstlichen Ostsee vor. Neueis kommt in geschützten Buchten der zentralen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt Neueis oder Festeis.

### Overview

In the archipelagos of the Bay of Bothnia, there is 20–50 cm thick fast ice in the north and 10–30 cm thick fast ice in the south. At sea, there is very close, 10–40 cm thick very close ice with ridges in the north and northeast, where also ice pressure occurs. Else, outside the fast ice. open to very close drift ice at places, with an brash ice barrir at the ice edge in the east. In Norra Kvarken, there is up to 35 cm thick fast ice in the archipelagos and mostly new ice at sea. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice. In the Gulf of Finland, there is up to 35 cm thick fast ice along the northern coast and in the easternmost part. At sea in the east, there is mostly very close, 10–20 cm thick 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, Lake Vänern and the southeastern Baltic. New ice occurs in sheltered areas of the central 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 20–50 cm thick fast ice, from the Finnish coast reaching out to Hebe and Kattilankalla. Off the fast ice in the east, there is 10–35 cm thick consolidated ice to Kemi-3 and Oulu-4. Further out to the line Malören – Merikallat – Raahe, there is

very close 10–40 cm thick ice, partly ridged; in the north, ice pressure occurs and the ice is difficult to force in places. More in the south, a brash ice barrier with ice pressure is present outside Raahe extending also further south and being difficult to force. On the Swedish side, there is 5-20cm thick

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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close ice northwest of Falkensgrund and else mostly very open ice. In the southern Bay of Bothnia, there is 10–35 cm thick fast ice in the archipelagos. At sea there is a small belt of 10-30cm very close ice with a brash ice barriers at the Finnish

#### **Norra Kvarken**

In the archipelagoes off Vaasa, there is 10–35 cm thick fast ice to Ensten. Further out to Norra Globsten 5-20cm thick very close ice, followed by thin open ice and new ice formation to Vaasa lighthouse. Along the Swedish coast, there is 10–25

#### **Sea of Bothnia**

On Ångermanälven, there is 15–35 cm thick fast ice and 5–15 cm level ice in the entrance. Else, there is 10–25 cm fast ice or thin level ice in the eastern archipelagos and the bays in the north-

#### **Archipelago and Åland Sea**

Thin level ice is present in inner archipelagos of the coasts and around the Åland islands. On the larger fairways and the outer archipelago at the

#### **Gulf of Finland**

From St. Petersburg up to longitude of Tolbuchen lighthouse there is 25–35 cm thick fast ice. In the Bay of Vyborg, there is 20–30 cm fast ice. In the Bjerkesund, there is fast ice, 20–30 cm thick, or very close ice. At sea east of about 28°10 E, there is mostly very close, 10–20 cm thick ice, in places ridged and under pressure. Further west to Moščnyj, and from there also further towards the northwest, there is very open ice. In the archipela-

#### **Gulf of Riga**

In Moonsund, there is very close, 10–25 cm thick ice or fast ice along the coasts, in the central part and on the fairways there is open water. At the south coast of Saaremaa, there is close ice in places and open water further out. In Pärnu Bay,

#### **Northern Baltic**

In Lake Mälaren, there is 5–20 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, 5–10 cm thick ice in the eastern part.

#### **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

side. Else, there is some new ice further out. With expected temperature between -2 and -5°C only minor ice formation is expected but due to northwesterly winds the brash ice barriers and ice pressure on the eastern ice edge will persist. .

cm thick fast in the inner archipelagos and 5-15cm thick close ice to Holmöarna. At sea in the north there is new ice and thin open ice. Minor ice formation and southeasterly ice drift is expected.

west; in the southwestern bays there is mostly 5-15cm level ice. Along the eastern ice edge, there is thin very close ice at places. No larger changes are expected.

eastern coast, there is mainly open water. No larger changes are expected.

gos of the northern coast, there is fast ice, 10-25cm thick in the west and 20–35 cm thick in the east. Off the fast ice in the east, there is thin very open ice. At the southern coast, new ice is present in some sheltered bays along the shore. In Lake Saimaa and the Saimaa Canal, there is 25–40 cm thick ice. Some new ice formation will occur and the ice drift towards the southeast.

there is 10–25 cm thick fast ice or very close ice to Kihnu, rafted in places. From Kihnu to Moonsund, there is a narrow belt of close ice. Southeastern ice drift, but overall no larger changes are expected.

there is thin level or new ice. Along the Swedish coast, there is new ice or shuga in some sheltered bays. No larger changes are expected.

No larger changes are expected.

Slow ice melt continues.

at places. Else, it is ice free. 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 larger changes are expected.

Dr. J.Holfort

**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 and Oulu	4000 dwt	IA	16.01.
	Raahe	4000 dwt	IA	16.01.
	Vaasa	2000 dwt	IB	16.01.
	Kokkola, Kalajoki and Pietarsaari	2000 dwt	IB	11.01.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali, Turku, Koverhar, Lappohja, Helsinki and Sköldvik	2000 dwt	II	01.01.
	Kaskinen, Taalintehdas, Förby, Inkoo, Kantvik	2000 dwt	I	16.01.
	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.
	Primorsk	-	Ice 1	12.01.
	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	IC	15.01.
	Örnsköldsvik	2000 dwt	IC	15.01.
	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.

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

**Icebreaker:** EVA-316 assists to the port of Pärnu.

**Finland/Sweden**

**The traffic separation schemes in the Quark are temporarily out of use from 15 January 2022.**

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, **POLARIS**, FREJ and YMER assist in the Bay of Bothnia. ALE and ZEUS assist in the Quark and VOIMA in the eastern Gulf of Finland. PROTECTOR assists 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)

Hellefjorden (Kragerø): Navigation temporarily closed. (10.01.22)

**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 , 17.01.2022**

Shipping route from Narva-Jõssuu	72/2
Kunda, port and bay	10/0
Paernu, port and bay	7347
Shipp. route from Paernu to Irben Strait	42/2
Moonsund	32/2

**Finland , 17.01.2022**

Roeyttae – Etukari	8446
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846

Ristinmatala – Kemi 2	5876
Kemi 2 – Kemi 1	5376
Sea area SW of Kemi 1	5376
Kemi 2 – Ulkokrunni – Virpiniemi	7876
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	6846
Sea area SW of Oulu 1	6766
High Sea N of the latitude of Marjaniemi	4746
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	7766
Raahe lighthouse – Nahkiainen	4046

Latitude Marjaniemi – Ulkokalla, Sea	3006	E-point Bol'šoj Ber'ozovjy – epelevskij	2211
Rahja harbour – Välimatala	6366	Luga bay	52/3
Vaelimatala to line Ulkokalla – Ykskivi	4046	Appr. Luga bay – line Mo.–epel.	52/3
Sea betw. lat. of Ulkokalla –Pietarsaari	2006		
Ykspihlaja – Repsaer	8346	<b>Sweden , 17.01.2022</b>	
Repskaer – Kokkola lighthouse	6766	Karlsborg – Maloeren	8446
Sea area off Kokkola lighthouse	3006	Sea area off Maloeren	5356
Pietarsaari – Kallan	8346	Luleå – Bjoernklack	8446
Sea area off Kallan	6266	Bjoernklack – Farstugrunden	4046
Sea lat. Pietarsaari – NE Nordvalen	3216	E and SE of Farstugrunden	4046
Sea area ENE of Nordvalen	3216	Sandgroenn fairway	8446
Sea area Nordvalen to W of Norrskaer	1216	Roedkallen – Norstroemsgrund	4356
Vaskiluoto – Ensten	8846	Haraholmen – Nygrån	8446
Ensten – Vaasa lighthouse	5746	Sea area off Nygrån	2326
Vaasa lighthouse – Norrskaer	1116	Skelleftehamn – Gåsoeren	4356
Sea area SW of Norrskaer	0//6	Sea area off Gåsoeren	4356
Kaskinen – Sälgrund	4746	Sea area off Bjuroeklubb	4356
Sea area off Sälgrund	4146	NE of Nordvalen	4046
Pori harb. to line Pori lighth. – Säppi	3145	SW of Nordvalen	4046
Rauma, Harbour – Kymäpihlaja	5745	Western Quark (W of Holmoearna)	8346
Uusikaupunki harbour – Kirsta	8745	Umeå – Vaektaren	4046
Kirsta – Isokari	2215	Fairway to Husum	4046
Naantali and Turku – Rajakari	3015	Oernskoeldsvik – Hoernskaten	8346
Rajakari – Lövskär	1005	Ångermanaelven north Sandoe Bridge	8444
Lövskär – Korra	1005	Ångermanaelven south Sandoe Bridge	8444
Korra – Isokari	1005	Haernoessand – Haernoen	5244
Lövskär – Berghamn	1005	Sundsvall – Draghaellan	8346
Hanko – Vitgrund	1005	Hudiksvallfjaerden	5246
Koverhar – Hästö Busö	2005	Iggesund – Agoe	5246
Inkoo a. Kantvik – sea area Porkkala	5746	Sandarne – Haellgrund	5146
Helsinki harbours – Harmaja	5745	Ljusnefjaerden – Storjungfrun	1106
Harmaja – Helsinki lighthouse	1015	Gaevle – Eggegrund	5146
Helsinki lighth. – sea S of Porkkala lh.	1015	Hallstavik – Svartklubben	5142
Fairway Helsinki – Porkkala – Rönnskär	2215	Koeping – Kvicksund	8344
Vuosaari harbour – Eestiluoto	2715	Västerås – Grönsö	8344
Eestiluoto – Helsinki lighthouse	1005	Fairway to Karlstad	8342
Porvoo harbours – Varlax	2115	Fairway to Kristinehamn	8342
Varlax – Porvoo lighthouse	1115		
Porvoo lighthouse – Kalbådagrund	1005		
Valko Harbour – Täktarn	7746		
Archipelago fairway Boistö – Glosholm	2115		
Archipelago fairway Glosholm–Helsinki	5245		
Kotka – Viikari	5246		
Viikari – Orregrund	2215		
Orregrund – Tiiskeri	1125		
Tiiskeri – Kalbådagrund	1015		
Hamina – Suurmusta	8846		
Suurmusta – Merikari	5246		
Merikari – Kaunissaari	2216		
<b>Russian Federation , 17.01.2022</b>			
Port of St. Petersburg	83/3		
St. Petersburg – E-point island Kotlin	83/3		
E-point Kotlin – long. lighth. Tolbuhkin	83/3		
Lighth. Tolbuhkin – lighth. –Šepelevskij	52/3		
Lighthouse Šepelevskij – island Sescar	52/3		
Island Sescar – Island Sommers	52/2		
Vyborg, port and bay	83/3		
Island Vichrevoj – Island Sommers	52/3		
Strait Bjerkesund	51/2		