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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 40

Amtsblatt des BSH

Jahrgang 95	Nr. 40	Monday, 24.01.2022	1

Übersicht

In den Schären der Bottenwiek liegt im Norden 20–55 cm dickes Festeis und im Süden 10–450 cm dickes Festeis. Auf See treibt im Norden 5-25cm dickes, sehr lockeres bis lockeres Eis. Außerhalb des östlichen Festeises liegt 20–45 cm dickes, örtlich aufgepresstes Eis. Außerhalb des Festeises im Westen kommt offenes Wasser vor. Im Süden treibt auf See dünnes, lockeres Eis, der zentrale Teil ist eisfrei. In Norra Kvarken liegt in den Schären bis zu 45 cm dickes Festeis und auf See kommt offenes Waser 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 und weiter außerhalb lockeres Eis. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht. Dünnes, teilweise ebenes Eis kommt örtlich in der nördlichen Ostsee, dem Vänern und der südöstlichen Ostsee vor. Dünnes Eis kommt in geschützten Buchten der zentralen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt dünnes Eis oder Festeis.

Overview

In the archipelagos of the Bay of Bothnia, there is 20–55 cm thick fast ice in the north and 10–45 cm thick fast ice in the south. At sea, 5-25cm thick, very open to open ice is drifting in the north. Along the eastern fast ice, there is very close, 20–45 cm thick partly ridged ice. Off the fast ice in the west, there is open water. In the southern part, there is thin open ice and the middle part is ice free. In Norra Kvarken, there is up to 45 cm thick fast ice in the archipelagos and open water 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 and open ice further out. In the Gulf of Riga, there is up to 25 cm thick ice in Moonsund and Pärnu Bay. Thin ice and thin level ice occurs at places in the northern Baltic, Lake Vänern and the southeastern Baltic. Thin ice occurs in sheltered areas of the central Baltic. Fast ice or thin ice is present in some inner fjords of the Skagerrak.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 20–55 cm thick fast ice, from the Finnish coast reaching out to Kemi-3, Oulu-4 and Johan. Off the fast ice in the east, there is 20–45 cm thick, partly ridged, very close ice to the line Kemi-2 - Holma –Raahe lighthouse. The ice field is difficult to force in places. Further out to Kemi-1 and Nahkiainen, there is thin very close ice, followed by open water. Off the fast ice in the west, there is mostly open water. In the southern Bay of Bothnia, there is 10–25 cm thick fast ice along the Swedish coast and 25-45cm thick in the eastern archipela-

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gos. Further out on the Finnish side, there fringe with 10–30 cm very close or consolidated ice, followed by first close, and then open thin ice. On the western side, there is open water. New ice formation will start again slowly and a mostly eastward ice drift is expected..

Norra Kvarken

In the archipelagoes off Vaasa, there is 10–35 cm thick fast ice to Ensten. Further out to Norra Globsten, there is 5–20 cm thick very close ice and later thin open ice to Vaasa lighthouse. Along the Swedish coast, there is 10–25 cm thick fast in the inner archipelagos. At sea, there is open water.
Some new ice formation may start again and the ice drift will be mainly towards the east.

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 in the bays in the northwest; in the southwestern bays, there is mostly 5–20 cm level or fast ice. Along the eastern ice edge, there is thin shuga.
No larger changes are expected.

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

Gulf of Finland

From St. Petersburg up to the longitude of Tolbuchin lighthouse there is 25–35 cm thick fast ice. In the Bay of Vyborg, there is 20–35 cm fast ice. In the Bjerkesund, there is 20–35 cm thick fast ice or 10–20 cm thick very close ice. At sea east of Seskar, there is very close, 10–20 cm thick ice. Further west, up to the longitude of lighthouse Sommers, there is open water. In the archipelagos of the northern coast, there is fast ice, 10–30 cm thick in the west and 20–35 cm thick in the east. Off the fast ice in the northeast, there is open water. At the southern coast, thin ice is present in some sheltered bays along the shore, in Luga and Narva Bay there is fast ice along the coast and further out a fringe with very close ice and open ice at sea. In Lake Saimaa and the Saimaa Canal, there is 25–45 cm thick ice, there are hard to force places in the canal.
A northeasterly, later southeasterly ice drift, with almost no ice formation, is expected.

Gulf of Riga

In Moonsund, there is very close, 5-20 cm thick ice or fast ice along the coasts, On the fairways mostly open water and in the southern part there is close thin ice. In Pärnu Bay, there is 10–25 cm thick fast ice or partly ridged very close ice in the eastern part. In the western part, there is mostly close ice.
No larger changes are expected.

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, 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.

Central Baltic

New ice occurs in some sheltered bays along the Swedish coast. No larger changes are expected.

Southeastern Baltic

In the Curonian Lagoon, there is very close, 5–10 cm thick ice in the eastern part. No larger changes are expected.

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. 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

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C	17.12.
Finland	Tornio, Kemi and Oulu	4000 dwt	IA	16.01.
	Raahe	2000 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	IA	22.01.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 2	14.01.
	Primorsk	-	Ice 1	12.01.
	Primorsk	**-**	**Ice 2**	**27.01.**
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	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. CALYPSO and PROTECTOR assist in the 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

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

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

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

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

Estonia , 24.01.2022

Shipping route from Narva-Jõssuu	72/2
Kunda, port and bay	1//0
Paernu, port and bay	73/5
Shipp. route from Paernu to Irben Strait	42/2
Moonsund	32/2

Finland , 24.01.2022

Roeyttae – Etukari	8446
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	5876
Kemi 2 – Kemi 1	4246
Sea area SW of Kemi 1	4246
Kemi 2 – Ulkokrunni – Virpiniemi	7876
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	6846
Sea area SW of Oulu 1	5856
High Sea N of the latitude of Marjaniemi	2216
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	6366
Raahe lighthouse – Nahkiainen	5766
Latitude Marjaniemi – Ulkokalla, Sea	3006
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	3726
Sea betw. lat. of Ulkokalla –Pietarsaari	3116
Ykspihlaja – Repsaer	7366
Repskaer – Kokkola lighthouse	6366
Sea area off Kokkola lighthouse	4146
Pietarsaari – Kallan	7346

Sea area off Kallan	6266
Sea lat. Pietarsaari – NE Nordvalen	3116
Sea area ENE of Nordvalen	1116
Sea area Nordvalen to W of Norrskaer	0//6
Vaskiluoto – Ensten	8846
Ensten – Vaasa lighthouse	5746
Vaasa lighthouse – Norrskaer	1116
Kaskinen – Sälgrund	5746
Sea area off Sälgrund	5266
Pori harb. to line Pori lighth. – Säppi	5145
Rauma, Harbour – Kylmäpihlaja	5745
Kylmäpihlaja – Rauma lighthouse	5145
Uusikaupunki harbour – Kirsta	8745
Kirsta – Isokari	3015
Naantali and Turku – Rajakari	2215
Rajakari – Lövskär	1115
Lövskär – Korra	1105
Korra – Isokari	1005
Lövskär – Berghamn	1005
Hanko – Vitgrund	1105
Koverhar – Hästö Busö	1105
Inkoo a. Kantvik – sea area Porkkala	7106
Helsinki harbours – Harmaja	1705
Vuosaari harbour – Eestiluoto	1115
Eestiluoto – Helsinki lighthouse	0//5
Porvoo harbours – Varlax	1115
Varlax – Porvoo lighthouse	1115
Valko Harbour – Täktarn	7746
Archipelago fairway Boistö – Glosholm	1105
Archipelago fairway Glosholm–Helsinki	1105
Kotka – Viikari	1216
Viikari – Orrengrund	1205
Orrengrund – Tiiskeri	0//5
Hamina – Suurmusta	8846
Suurmusta – Merikari	1216
Merikari – Kaunissaari	1216

Russian Federation , 24.01.2022

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	1201
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	1201
Strait Bjerkesund	52/2
E-point Bol'šoj Ber'ozovyj – Šepelevskij	52/3
Luga bay	3211
Appr. Luga bay – line Mo–.-–epel.	2211

Sweden , 24.01.2022

Karlsborg – Maloeren	8546
Sea area off Maloeren	2326
Luleå – Bjoernklack	8546
Bjoernklack – Farstugrunden	1206
E and SE of Farstugrunden	1206
Sandgroenn fairway	8546
Roedkallen – Norstroemsgrund	1206
Haraholmen – Nygrån	8446
Sea area off Nygrån	1206
Skelleftehamn – Gåsoeren	4046
Sea area off Gåsoeren	1206
Sea area off Bjuroeklubb	1206
Western Quark (W of Holmoearna)	8346
Umeå – Vaektaren	1206
Oernskoeldsvik – Hoernskaten	8346
Ångermanaelven north Sandoe Bridge	8444
Ångermanaelven south Sandoe Bridge	8444
Sundsvall – Draghaellan	8346
Draghaellan – Åstholmsudde	3126
Hudiksvallfjaerden	5346
Iggesund – Agoe	8346
Sandarne – Haellgrund	8346
Ljusnefjaerden – Storjungfrun	1106
Gaevle – Eggegrund	8346
Hallstavik – Svartklubben	8342
Koeping – Kvicksund	8344
Västerås – Grönsö	8344
Stockholm – Södertälje	4044
Fairway to Karlstad	8342
Fairway to Kristinehamn	8342