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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 60

Amtsblatt des BSH

Jahrgang 95	Nr. 60	Monday, 21.02.2022	1

Übersicht

In den Schären der Bottenwiek liegt im Norden 40–70 cm dickes Festeis und im Süden 20–55 cm dickes Festeis. Außerhalb davon meist dünnes ebenes Eis, auf See treibt im Norden ein Gebiet mit 20–50 cm dickem, sehr dichtem und aufgepresstem Eis. Ansonsten befindet sich auf See sehr dichtes, 10–40 cm dickes und örtlich aufgeschobenes Eis. In Norra Kvarken kommt in den Schären bis zu 55 cm dickes Festeis vor. Auf See treibt im Osten dichtes, 5–30 cm dickes Eis und im Westen kommt meist Neueis vor. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes, ebenes Eis und Neueis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich der Linie Kotka – Seskar - Sosnowy Bor treibt auf See meist sehr dichtes, 15–30 cm dickes Eis sowie offenes Wasser weiter westlich. 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 und dem Vänern vor. In einigen inneren Fjorden des Skagerraks liegt dünnes Eis oder Festeis.

Overview

In the archipelagos of the Bay of Bothnia, there is 40–70 cm thick fast ice in the north and 20–55 cm thick fast ice in the south. Outside mostly thin level ice. At sea there is an area with 20–50 cm thick, partly ridged and very close ice in the north, else there is mostly rafted, 10–40 cm thick, very close ice. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos. At sea, there is 5-30cm thick close ice in the east and new ice in the west. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice and new ice. In the Gulf of Finland, there is up to 45 cm thick fast ice along the northern and eastern coast. At sea east of the line Kotka – Seskar - Sosnowy Bor, there is mostly very close, 15–30 cm thick ice and open water further west. 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 and Lake Vänern. Fast ice or thin ice is present in some inner fjords of the Skagerrak.

Bay of Bothnia

In and outside the northeastern archipelagos there is 40–70 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Johan. In the northwestern archipelagos the fast ice is 20–50 cm thick. Off the fast ice in the east, there is 20–50 cm thick consolidated ice to Kemi-2 and Oulu-1. Outside this ice and also outside the fast ice in the north and west there is a wide area with new ice and thin level ice stretching southwards to off Raahe and Gasören. At sea centered at around 64°50’ N 23° E, there is an area with very close, ridged and 20–50 cm thick ice. Else at sea, there is mostly very close, 20–40 cm thick ice that is rafted at places. In the southern Bay of Bothnia, there is 20–40 cm thick fast ice

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along the Swedish coast; on the eastern coast there is 20–55 cm thick fast ice followed by a fringe of consolidated ice. At sea in the east 20-40cm thick very close ice with cracks and in the west

new ice and thin level ice.
Ice formation will continue and the ice will drift slowly to the southwest/south.

Norra Kvarken

In the archipelagoes off Vaasa, there is 25–55 cm thick fast ice to Ensten; further out there is 5–30 cm thick ice of varying concentration and new ice to Sydostbrotten and Nordvalen. Along the Swe-

dish coast, there is 20–40 cm thick fast ice in the archipelagos and mostly new ice further out.
There will be ice formation and the ice drift will be to the southwest.

Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick fast ice in the upper part and 15–35 cm fast or close ice in the lower part. In the bays along the western coast, there is 10–40 cm thick fast ice or new ice. Further out in there is new ice in the north and open water in the south. Along the eastern coast,

there is 10–40 cm fast ice in the inner archipelagos, followed by a 5-15nm wide zone with 5-20cm thick ice of varying concentrations.
Some ice formation and a southerly ice drift is expected.

Archipelago and Åland Sea

10–30 cm thick fast ice is present in the inner archipelagos of the coasts. Further out in the east and around the Åland Islands, there is thin level ice. In the outer archipelago at the eastern coast,

there is mainly open water.
Easterly, later northerly winds will lead to temperatures below 0°C and some ice formation.

Gulf of Finland

From St. Petersburg up to the longitude of Tolbuchin lighthouse, there is 30–45 cm thick fast ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 25–35 cm thick fast ice. At sea east of the line Kotka – Seskar - Sosnowy Bor, there is mostly very close, 15–30 cm thick ice. Further west a region with open water. In the archipelagos of the

northern coast, there is fast ice, 10–30 cm thick in the west and 20–45 cm thick in the east. In Luga Bay, there is very close ice or fast ice in places near the coast and open water further out. In Narva Bay, there is open water.
Some ice formation may occur and the ice will drift towards the west. .

Gulf of Riga

In Moonsund, there is 10–20 cm thick fast near the coasts. Further out there is very close ice and on the fairways is open water or very open ice. In Pärnu Bay, there is 15–25 cm thick fast or very

close ice to line Manilaid –Sorgu - Kabli.
Northewrly ice drift and marginal ice melt is expected.

Northern Baltic

In Lake Mälaren, there is 10–30 cm thick fast ice or level ice in the western part, and further east, there is mostly thin level. In the central part, there are areas with open water. Along the Swedish coast,

there is partly broken thin level ice in some sheltered bays.
Some ice may from in Lake Mälaren, but else no larger changes are expected.

Southeastern Baltic

In the Curonian Lagoon, there is a narrow band of very close ice along the eastern coast.

Further ice melt.

Skagerrak and Kattegat

In some inner fjords of the Skagerrak, there is up to 30 cm thick fast ice at a few places.

No larger change is expected.

Swedish Lakes

In Lake Vänern, there is 5–20cm thick partly broken fast ice in bays of the northern coast.

There is some chance of ice formation, but overall 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	2000/4000 dwt	IA Super(5000kW)/IA	09.02.
	Raahe	2000 dwt	IA	16.01.
	Kokkola, Kalajoki, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	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.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 2	14.01.
	Primorsk	-	Ice 2	27.01.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg and Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IB	19.02.
	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 Saimaa Canal is closed for traffic from 30th of January.

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, SISU, ALE, ODEN and YMER assist in the Bay of Bothnia.
ATLE and ZEUS assist in the Quark, VOIMA in the eastern Gulf of Finland.

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 , 21.02.2022

Shipping route from Narva-Jõssuu	1//0
Paernu, port and bay	73/5
Moonsund	2//1

Finland , 21.02.2022

Roeyttae – Etukari	8446
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	6876
Kemi 2 – Kemi 1	9136
Sea area SW of Kemi 1	5356
Kemi 2 – Ulkokrunni – Virpiniemi	8446
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	6876
Sea area SW of Oulu 1	9136
High Sea N of the latitude of Marjaniemi	5856
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	9136
Raahe lighthouse – Nahkiainen	9256
Latitude Marjaniemi – Ulkokalla, Sea	5876
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	5756
Sea betw. lat. of Ulkokalla –Pietarsaari	5346
Ykspihlaja – Repskaer	8846
Repskaer – Kokkola lighthouse	6366
Sea area off Kokkola lighthouse	5356
Pietarsaari – Kallan	7846
Sea area off Kallan	5346
Sea lat. Pietarsaari – NE Nordvalen	5756
Sea area ENE of Nordvalen	4746
Sea area Nordvalen to W of Norrskaer	4746
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5746
Vaasa lighthouse – Norrskaer	5746
Sea area SW of Norrskaer	3716
Kaskinen – Sälgrund	5746
Sea area off Sälgrund	4746
Pori harb. to line Pori lighth. – Säppi	4245
Rauma, Harbour – Kylmäpihlaja	7745
Uusikaupunki harbour – Kirsta	8745
Kirsta – Isokari	3215
Naantali and Turku – Rajakari	7245
Rajakari – Lövskär	2115
Lövskär – Korra	5145
Korra – Isokari	3105

Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Hanko – Vitgrund	1105
Inkoo a. Kantvik – sea area Porkkala	7206
Helsinki harbours – Harmaja	3105
Vuosaari harbour – Eestiluoto	1105
Porvoo harbours – Varlax	3215
Valko Harbour – Täktarn	7746
Archipelago fairway Boistö – Glosholm	2106
Archipelago fairway Glosholm–Helsinki	1115
Kotka – Viikari	5346
Viikari – Orrengrund	2316
Orrengrund – Tiiskeri	2115
Hamina – Suurmusta	7846
Suurmusta – Merikari	5346
Merikari – Kaunissaari	4346

Norway , 21.02.2022

Svinesund – Halden	31//
Mossesund	1//1
Husøysund – Tønsberg channel	8245
Tønsberg, inner harbour	8345
Vestfjord (Tønsberg)	8345
Langårsund (Kragerø)	2212

Russian Federation , 21.02.2022

Port of St. Petersburg	84/3
St. Petersburg – E-point island Kotlin	84/3
E-point Kotlin – long. lighth. Tolbuhkin	54/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	52/2
Lighthouse Šepelevskij – island Sescar	53/3
Island Sescar – Island Sommers	53/3
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	53/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53/3
Luga bay	1311
Appr. Luga bay – line Moš.-Šepel.	1311

Sweden , 21.02.2022

Karlsborg – Maloeren	8546
Sea area off Maloeren	5456
Luleå – Bjoernklack	8446
Bjoernklack – Farstugrunden	5456
E and SE of Farstugrunden	5456
Sandgroenn fairway	8446
Roedkallen – Norstroemsgrund	5456
Haraholmen – Nygrån	8446
Sea area off Nygrån	5336
Skelleftehamn – Gåsoeren	5336
Sea area off Gåsoeren	5336
Sea area off Bjuroeklubb	5456
NE of Nordvalen	4336
SW of Nordvalen	4046
Western Quark (W of Holmoearna)	8346
Umeå – Vaektaren	8446
SE of Vaektaren	4046
NE and SE of Sydostbrotten	4046
Fairway to Husum	8446
Oernskoeldsvik – Hoernskaten	8446
Hoernskaten – Skagsudde	8446
Sea area off Skagsudde	3326
Fairway W of Ulvoearna	3326
Sea area E of Ulvoearna	1206
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	5434
Haernoesand – Haernoen	4044
Sea area off Haernoe	4041
Sundsvall – Draghaellan	8346
Draghaellan – Åstholmsudde	4046
Off Åstholmsudde and Braemoen	4041
Hudiksvallfjaerden	8446
Iggesund – Agoe	8446
Sea area off Agoe	1206
Sandarne – Haellgrund	1206
Sea area off Haellgrund	1206
Ljusnefjaerden – Storjungfrun	1206
Sea area off Storjungfrun	1201
Gaevle – Eggegrund	8446
Sea area off Eggegrund	1201
Oeregrundsgrepen	3222
Hallstavik – Svartklubben	8342
Koeping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	5244
Stockholm – Södertälje	5244
Södertälje – Fifong	1004
Fairway to Karlstad	8342
Fairway to Kristinehamn	8342