ISSN 0013-2705

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 93

Amtsblatt des BSH

Jahrgang 95	Nr. 93	Thursday, 07.04.2022	1

Übersicht

In den Schären der Bottenwiek liegt im Norden 40–85 cm dickes Festeis und im Süden 30–55 cm dickes Festeis. Entlang des Festeises im Norden, Nordosten und Westen liegt eine bis 20 sm Breite Rinne mit sehr lockerem oder dünnem Eis. Auf See treibt 20–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis bis etwa einer Line von südlich Pietarsaari nach Nordwesten. In Norra Kvarken liegt in den Schären bis zu 50 cm dickes Festeis und auf See kommt örtlich offenes Wasser vor. Entlang der Küsten und in den Schären der Bottensee liegt Festeis oder dünnes, ebenes Eis; im Schärenmeer und der Ålandsee morsches Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich von Seskar treibt auf See 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste örtlich morsches Eis im Moonsund und in der Pärnubucht vor. In der nördlichen Ostsee und dem Vänern kommt im geschützten Buchten noch örtlich morsches Eis vor.

Overview

In the archipelagos of the Bay of Bothnia, there is 40–85 cm thick fast ice in the north and 30–55 cm thick fast ice in the south. Outside the fast ice in the north, northeast and west there is an up to 25 NM wide lead with very open ice. At sea there is mostly 20–70 cm thick, very close, ridged and rafted ice up to a line from south of Pietarsaari to the northwest. In Norra Kvarken, there is up to 50 cm thick fast ice in the archipelagos and open water in places at sea. Along the coasts and archipelagos of the Sea of Bothnia there is fast ice or thin level ice; in the Archipelago Sea and Åland Sea there is rotten 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 Seskar, there is mostly very close 15–30 cm thick ice. In the Gulf of Riga, there is rotten ice in places at the coasts of Moonsund and in Pärnu Bay. In the northern Baltic and Lake Vänern, thin rotten ice is still present in some sheltered bays.

Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice and consolidated ice, reaching out to Kemi-2, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice and consolidated ice is 40–70 cm thick. Further out in the north, there is a 15–25 NM wide lead with open water and very open ice followed by 5–20 cm thick very close ice. A narrower lead is present in the east. In the west there is an up to 10 NM wide lead with 5—20 cm thick very open ice. Further out at sea, there is an area with very close, ridged, 50–70 cm thick ice around 64°45’ N 23°14’ E. Else at sea, there is 20–60 cm thick, very close ice. The ice field is ridged or rafted and difficult to force but there are also cracks and leads. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast and on the eastern coast, there is 30–55 cm thick fast ice. At sea, there is 20–60 cm thick, very close ice partly rafted and with cracks and leads. The ice edge runs from

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about 63°30' N at the eastern coast (south of Pietarsaari) to the northwest and just outside the ice edge there is open water.
With only slight frost and increasing winds from east/northeast, not much new ice formation is expected but the ice will drift significantly in westerly directions.

Norra Kvarken

In the archipelagoes off Vaasa, there is 20–50 cm thick fast ice to about Nygrund followed by narrow belt of 20-30 cm thick, close ice. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there is open water near the coasts and it is mostly ice free further out.
With only slight frost no larger change of the ice conditions is expected but winds will increase significantly up to near gale from east/northeast during night.

Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly thin very open ice in the lower part. In sheltered bays along the western coast, there is 10–35 cm thick fast ice. Along the eastern coast, there is 20–45 cm fast ice in the inner archipelagos, and belts of 10-30 cm thick ice are drifting in places somewhat further out.
Overall no larger changes are expected.

Archipelago and Åland Sea

Rotten ice, up to 30 cm thick, are present in the inner archipelagos and sheltered bays of both coasts. At the eastern coast, there is mostly open water on the fairways and in the outer archipelagos.
Overall no larger changes are expected with some ice melt.

Gulf of Finland

From St. Petersburg up to the dike, there is 25–35 cm thick very close ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 15–35 cm thick compact or fast ice and very close ice somewhat further out. At sea, starting some miles east of Seskar there is mostly very close 15–30 cm thick drift ice, which is under pressure; around Seskar and southwards very open ice and open water. In Luga Bay and the entrance there is open water. In the archipelagos of the northern coast, there is 10–40 cm thick partly rotting fast ice in the west and 30–60 cm thick fast ice in the east. Further out, there is very open ice and open water.
Some ice melt is expected the coming day and the ice drifts northwestwards.

Gulf of Riga

In Moonsund, there is rotten fast ice at the eastern coast and further out there is open water. In Pärnu Bay, there is rotten fast ice in the eastern part and else open water.
With temperatures mostly above the freezing point, the ice will slowly melt.

Northern Baltic

In Lake Mälaren, there is rotten fast ice in sheltered bays and else open water. Along the Swedish coast, there is partly broken and rotten thin ice in the Stockholm archipelago.
The ice will gradually disappear.

Swedish Lakes

In Lake Vänern, there is rotten ice in bays of the northern coast.
The ice will gradually disappear.

Dr. W. Aldenhoff

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Finland	Tornio, Kemi and Oulu	4000 dwt	IA	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola and Pietarsaari	2000 dwt	IA	01.02.
	Vaasa	2000 dwt	I	31.03.
	Kaskinen	2000 dwt	II	31.03.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali and Turku	2000 dwt	II	01.01.
	Loviisa	2000 dwt	II	24.03.
	Kotka and Hamina	2000 dwt	II	29.03.
	Mussalo	2000 dwt	II	25.12.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	**-**	**Ice 1**	**01.04.**
	Primorsk	**-**	**Ice 1**	**06.04.**
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg	4000 dwt (2000 t)	IA	30.03.
	Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	**2000 dwt**	**II**	**07.04.**
	Örnsköldsvik	2000 dwt	II	30.03.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.

Information of the Icebreaker Services

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

Norway

Hellefjorden (Kragerø): Navigation temporarily closed. (28.02.22)

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, 07.04.2022

Paernu, port and bay	7293
Moonsund	1//0

Finland, 07.04.2022

Röyttä – Etukari	8646
Etukari – Ristinmatala	8546
Ajos – Ristinmatala	8546
Ristinmatala – Kemi 2	6476
Kemi 2 – Kemi 1	9246
Sea area SW of Kemi 1	9246
Kemi 2 – Ulkokrunni – Virpiniemi	8546
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6476
Sea area SW of Oulu 1	9476
High Sea N of the latitude of Marjaniemi	9476
Raahe harbour – Heikinkari	8546
Heikinkari – Raahe lighthouse	7476
Raahe lighthouse – Nahkiainen	5476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	5476
Sea betw. lat. of Ulkokalla –Pietarsaari	5476
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	6866
Sea area off Kokkola lighthouse	5476
Pietarsaari – Kallan	7856
Sea area off Kallan	5876
Sea lat. Pietarsaari – NE Nordvalen	1716
Vaskiluoto – Ensten	7446
Ensten – Vaasa lighthouse	1726
Kaskinen – Sälgrund	1715
Pori harb. to line Pori lighth. – Säppi	1215
Rauma, Harbour – Kylmäpihlaja	1725
Uusikaupunki harbour – Kirsta	8795
Naantali and Turku – Rajakari	1205
Rajakari – Lövskär	1205
Lövskär – Korra	1205
Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Inkoo a. Kantvik – sea area Porkkala	7201
Helsinki harbours – Harmaja	1000
Vuosaari harbour – Eestiluoto	1000
Porvoo harbours – Varlax	1000
Varlax – Porvoo lighthouse	1000
Valko Harbour – Täktarn	7715
Archipelago fairway Boistö – Glosholm	1105
Archipelago fairway Glosholm–Helsinki	1105
Kotka – Viikari	1015
Viikari – Orrengrund	1105
Hamina – Suurmusta	7145
Suurmusta – Merikari	1015
Merikari – Kaunissaari	1105

Russian Federation, 07.04.2022

Port of St. Petersburg	54/3
St. Petersburg – E-point island Kotlin	54/3
E-point Kotlin – long. lighth. Tolbuhkin	53/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	53/2
Lighthouse Šepelevskij – island Sescar	53/2
Island Sescar – Island Sommers	1311
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	63/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	52/3
Luga bay	1211
Appr. Luga bay – line Moš.-Šepel.	1211

Sweden, 07.04.2022

Karlsborg – Malören	6476
Sea area off Maloeren	5576
Luleå – Björnklack	6476
Björnklack – Farstugrunden	6476
E and SE of Farstugrunden	2326
Sandgrönn fairway	6476
Rödkallen – Norströmsgrund	2326
Haraholmen – Nygrån	6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsören	5456
Sea area off Gåsören	5456
Sea area off Bjuröklubb	5556
Western Quark (W of Holmöarna)	1306
Umeå – Väktaren	1306
SE of Väktaren	1306
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	8446
Ångermanälven north Sandö Bridge	5434
Ångermanälven south Sandö Bridge	2024
Härnösand – Härnön	2024
Hudiksvallfjärden	8442
Hallstavik – Svartklubben	8392
Köping – Kvicksund	1000
Västerås – Grönsö	1000
Grönsö – Södertälje	1000
Stockholm – Södertälje	1000