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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 85

Amtsblatt des BSH

Jahrgang 95	Nr. 85	Monday, 28.03.2022	1

Übersicht

In den Schären der Bottenwiek liegt im Norden 40–85 cm dickes Festeis und im Süden 30–55 cm dickes Festeis. Auf See treibt im Norden und Osten 30–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis. Im Süden ist meist offenes Wasser. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis und auf See kommt offenes Wasser 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 45 cm dickes Festeis. Östlich von Moščnyj treibt auf See zumeist sehr dichtes bis dichtes, 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht vor. Dünnes, teilweise morsches Eis kommt örtlich in der nördlichen Ostsee und dem Vänern 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. At sea in the north and east, there is mostly 30–70 cm thick, very close, ridged and rafted ice. In the southern part, there is mostly open water. In Norra Kvarken, there is up to 55 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 45 cm thick fast ice along the northern and eastern coast. At sea east of Moščnyj, there is mostly very close to close, 15–30 cm thick ice. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and in Pärnu Bay. Thin, partly rotten ice occurs at places in the northern Baltic and Lake Vänern.

Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice is 40–70 cm thick. Off the fast ice in the north and east, there is 40–70 cm thick consolidated ice, in the east to Kemi-2 and Oulu-1. Off the fast ice in the west, there is very close or consolidated, 30–50 cm thick ice. Further out in the north and east, there is a wide lead with new ice. At sea, there is an area with very close, ridged, 40–70 cm thick ice around 65°05’ N 23°20’ E. Else at sea, there is very close, 30–60 cm thick, ridged and rafted ice east of the line Nygrån – Kokkola. There is pressure in the ice field and it is difficult to force in places, but especially in the southern part there are also numerous fractures and leads. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast; on the eastern coast there is 30–55 cm thick fast ice followed by a narrow fringe of consolidated or very close ice. At sea, there is mostly open water.

With mostly moderate to severe frost, new ice formation is expected the coming day. With a fresh breeze from the north, the ice will drift in southerly

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directions.

Norra Kvarken

In the archipelagoes off Vaasa, there is 30–55 cm thick fast ice to Ensten. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there is open water in the northern part and along the coasts.
Some ice formation is possible in sheltered coastal areas. With a fresh breeze from the north, ice formation is unlikely at sea.

Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly open water in the lower part. In the bays along the western coast, there is 10–40 cm thick fast ice. Further out, there is open water. Along the eastern coast, there is 20–45 cm fast ice in the inner archipelagos, followed by a very narrow belt of 10–30 cm thick ice of varying concentrations.
With dropping temperatures some ice formation is possible but overall no larger changes are expected.

Archipelago and Åland Sea

10–35 cm thick rotting fast ice and level ice are present in the inner archipelagos and bays of both coasts. At the eastern coast, there is mostly open water on the fairways and in the outer archipelagos. Around the Åland Islands, there is rotting level ice.
Overall no larger changes are expected but temperatures are dropping to slight frost.

Gulf of Finland

From St. Petersburg up to the easternmost tip of Kotlin, there is 35–45 cm thick fast ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 25–45 cm thick compact or fast ice and very close ice in the entrance to Vyborg Bay. At sea, east of a line from Vyborg Bay to Moščnyj, there is mostly very close to close, 15–30 cm thick drift ice but at places there is also very open ice. North of that line, there is mostly open water. In the archipelagos of the northern coast, there is fast ice, 15–35 cm thick in the west and 30–55 cm thick in the east, and open water further out.
Some ice formation is possible in the easternmost part with temperatures dropping to moderate frost.
Ice drift will be in southerly directions.

Gulf of Riga

In Moonsund, there is 10–20 cm thick rotten fast ice or very close ice at the eastern coast. Further out and on the fairways, there is open water. In Pärnu Bay, there is 15–25 cm thick and rotten fast ice near the northern and eastern coast, further out there is narrow belt of close ice. In the western part is mostly open water.
Melting continues today but in the course of the night temperatures will drop below freezing point.

Northern Baltic

In Lake Mälaren, there is rotten fast or level ice in sheltered bays and else mostly open water. Along the Swedish coast, there is partly broken and rotten thin level ice in the Stockholm archipelago.

Continued ice melt is expected today but temperatures will drop significantly during night and the coming days.

Swedish Lakes

In Lake Vänern, there is rotten ice in bays of the northern coast.

Ice melt will continue the coming day.

Dr. W. Aldenhoff

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	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	Kaskinen	2000 dwt	I	16.01.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali and Turku	2000 dwt	II	01.01.
	Loviisa	2000 dwt	II	24.03.
	Kotka	2000 dwt	I	01.04.
	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	4000 dwt (4000 t)	IA	23.03.
	Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IC	14.03.
	Örnsköldsvik	2000 dwt	IC	15.01.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.

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, NORDICA, SISU, FREJ, ODEN, ALE and YMER assist in the Bay of Bothnia. ZEUS assist 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, 28.03.2022

Paernu, port and bay	7375
Moonsund	1//0

Finland, 28.03.2022

Roeyttae – Etukari	8646
Etukari – Ristinmatala	8546
Ajos – Ristinmatala	8546
Ristinmatala – Kemi 2	6476
Kemi 2 – Kemi 1	9026
Sea area SW of Kemi 1	4476
Kemi 2 – Ulkokrunni – Virpiniemi	8546
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6476
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8546
Heikinkari – Raahe lighthouse	7476
Raahe lighthouse – Nahkiainen	4476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	5476
Sea betw. lat. of Ulkokalla –Pietarsaari	5456
Ykspihlaja – Repskaer	8846
Repskaer – Kokkola lighthouse	6866
Sea area off Kokkola lighthouse	5846
Pietarsaari – Kallan	7856
Sea area off Kallan	5876
Sea lat. Pietarsaari – NE Nordvalen	1716
Sea area ENE of Nordvalen	1216
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	1716
Kaskinen – Sälgrund	1716
Sea area off Sälgrund	1716
Pori harb. to line Pori lighth. – Säppi	1215
Rauma, Harbour – Kylmäpihlaja	7765
Uusikaupunki harbour – Kirsta	8745
Naantali and Turku – Rajakari	1205
Rajakari – Lövskär	1205
Lövskär – Korra	1205
Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Inkoo a. Kantvik – sea area Porkkala	7201
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	1316
Viikari – Orrengrund	1715
Orrengrund – Tiiskeri	0//5
Hamina – Suurmusta	7846
Suurmusta – Merikari	1716
Merikari – Kaunissaari	1716

Russian Federation, 28.03.2022

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	52/2
Lighthouse Šepelevskij – island Sescar	33/3
Island Sescar – Island Sommers	43/3
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	63/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	2312
Luga bay	52/2
Appr. Luga bay – line Moš.-Šepel.	42/2

Sweden, 28.03.2022

Karlsborg – Maloeren	6476
Sea area off Maloeren	5576
Luleå – Bjoernklack	6476
Bjoernklack – Farstugrunden	5576
E and SE of Farstugrunden	5576
Sandgroenn fairway	6476
Roedkallen – Norstroemsgrund	5576
Haraholmen – Nygrån	6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsoeren	2326
Sea area off Gåsoeren	2326
Sea area off Bjuroeklubb	6456
Western Quark (W of Holmoearna)	1306
Umeå – Vaektaren	8446
Oernskoeldsvik – Hoernskaten	8446
Hoernskaten – Skagsudde	8446
Fairway W of Ulvoearna	1306
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	1304
Haernoesand – Haernoen	1306
Sundsvall – Draghaellan	1101
Hudiksvallfjaerden	8442
Hallstavik – Svartklubben	8392
Koeping – Kvicksund	8392
Västerås – Grönsö	1201
Grönsö – Södertälje	1201
Stockholm – Södertälje	1201
Fairway to Karlstad	8392
Fairway to Kristinehamn	8392