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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 17

Amtsblatt des BSH

Jahrgang 95	Nr. 17	Tuesday, 21.12.2021	1

Übersicht

In der nördlichen Bottenwiek liegt in den Schären 15-30cm dickes Festeis und weiter außerhalb treibt meist Neueis oder lockeres Eis. In der südlichen Bottenwiek und Norra Kvarken liegt in den Schären bis zu 25cm dickes Festeis. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt dünnes ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt entlang der Nordküste dünnes, ebenes Eis und im Osten zumeist dünnes, ebenes Eis und bis zu 20cm dickes Festeis. Im Rigaischen Meerbusen befindet sich Neueis und bis zu 15cm dickes Eis Eis im Moonsund und in der Pärnubucht. Neueis und dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, den Haffgebieten der südöstlichen Ostsee und dem Vänern vor.

Overview

In the northern Bay of Bothnia, there is 15-30cm thick fast ice in the archipelagos, and mostly new ice or open ice further out. In the southern Bay of Bothnia and Norra Kvarken, there is up to 25cm thick fast ice in the archipelagos. Along the coasts of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is thin level ice or new ice. In the Gulf of Finland, thin level ice is present along the northern coast. Thin level ice and up to 20cm thick fast ice is present in the eastern part. In the Gulf of Riga, there is new ice and up to 15cm thick ice in Moonsund and Pärnu Bay. New ice and thin level ice occurs at places in the northern Baltic, in the lagoons of the southeastern Baltic and Lake Vänern.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 15–30 cm thick fast ice, from the Finnish coast reaching out to Kemi-3 and Kattilankalla. Adjacent to the fast ice in the east and northeast, there is 10-25cm thick, very close ice; followed by new ice. Farther out an area of open to close ice is drifting outside of Hailuoto. Off the fast ice in the west, there is new ice in the north and very open to close, 5-20cm thick ice west of Norströmgrund. In the southern Bay of Bothnia, there is 10–20 cm thick fast ice in the archipelagos, farther out new ice. Ice formation and a first southerly, later easterly ice drift is expected.

Norra Kvarken

In the archipelagoes off Vaasa, there is mostly 5–25 cm thick fast ice with new ice outside. Along the Swedish coast there is 5-20cm thick fast or level ice in the inner archipelago. Some ice formation will occur with only minor ice drift.

Herstellung und Vertrieb
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Sea of Bothnia
On Ångermanälven, there is 10–20 cm very close ice in the upper part and very open ice in the lower part, else 5-10cm thick level ice in sheltered bays along the Swedish coast. Along the Finnish coast there is 5-15cm thick level ice with new ice outside. Some ice growth is expected.

Archipelago and Åland Sea
New ice and thin level is present in sheltered places in the Archipelago and Åland Sea. Ice formation, but else no larger change, is expected.

Gulf of Finland
From St. Petersburg to Kotlin there is 5–15 cm thick, very close ice with some thicker ice northeast of Kotlin. Farther out to the longitude of lighthouse Tolbuchin there is new ice and dark nilas. In the Bay of Vyborg, there is 10–20 cm fast ice, with very open new ice in the entrance. 3-10cm very close is present in the Bjerkesund. In the archipelagoes of the northern coast, there is 5-10cm thick level ice. In Lake Saimaa and the Saimaa Canal, there is 5–25 cm thick fast ice. With moderate to strong frost some ice formation will take place. The ice will drift mostly in southerly direction.

Gulf of Riga
In Moonsund and nearby shallow bays, there is nilas and very close, 5–10 cm thick ice. On the fairways there is open water with new ice in the south. In Pärnu Bay, there is very close, 5-15 cm thick nilas in the east and new ice is present in the west. In the port of Riga there is new ice. Some ice formation will occur and the ice will drifts southwards.

Northern Baltic
In Lake Mälaren, thin level ice or new ice is present in the westernmost part and some sheltered bays. Else, there is new ice in some sheltered bays along the Swedish coast and in the port of Liepaja. Some ice formation will occur.

Southeastern Baltic
In the Curonian Lagoon new ice is present mostly in the eastern part. Some minor ice formation is expected.

Western and Southern Baltic
Some ice formation is taking place in sheltered areas.

Swedish Lakes
New ice as well as 5-15cm thick level ice is present in sheltered bays of Lake Vänern. Some minor ice formation is 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, Oulu and Raahe	2000 dwt	I	11.12.
	Tornio, Kemi, Oulu and Raahe	**2000 dwt**	**IB**	**25.12.**
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	II	08.12.
	Kokkola and Vaasa	**2000 dwt**	**I**	**22.12.**
	Kalajoki and Pietarsaari	**2000 dwt**	**I**	**25.12.**
	Loviisa, Kotka and Hamina	**2000 dwt**	**II**	**22.12.**
	Mussalo	**2000 dwt**	**II**	**25.12.**
	Northern Lake Saimaa	2000 dwt	II	08.12.
	Southern Lake Saimaa and Saimaa Canal	2000 dwt	II	11.12.
	Lake Saimaa and Saimaa Canal	**2000 dwt**	**I**	**22.12.**
Sweden	Karlsborg and Luleå	2000 dwt	IC	11.12.
	Haraholmen and Skelleftehamn	2000 dwt	II	04.12.
	Haraholmen and Skelleftehamn	**2000 dwt**	**IC**	**22.12.**
	Holmsund, Rundvik and Husum	**2000 dwt**	**II**	**22.12.**
	Örnsköldsvik	**2000 dwt**	**II**	**22.12.**
	Ångermanälven	1300/2000 dwt	IC/II	04.12.
	Ångermanälven	**2000 dwt**	**IC**	**22.12.**
	Härnösand- Skutskär	**2000 dwt**	**II**	**22.12.**
	Köping and Västerås	1300/2000 dwt	IC/II	06.12.
	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

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, FREJ and YMER assist in the Bay of Bothnia. PROTECTOR and CALYPSO assist in the northern Lake Saimaa. METEOR assists in the southern Lake Saimaa and the Saimaa Canal.

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

Germany , 21.12.2021

Schlei, Schleswig – Kappeln	1000

Sweden , 21.12.2021

Karlsborg – Maloeren	8346
Sea area off Maloeren	5046
Luleå – Bjoernklack	8346
Bjoernklack – Farstugrunden	5046
E and SE of Farstugrunden	5046
Sandgroenn fairway	8346
Roedkallen – Norstroemsgrund	4356
Haraholmen – Nygrån	8346
Sea area off Nygrån	2356
Skelleftehamn – Gåsoeren	5046
Sea area off Gåsoeren	5041
Western Quark (W of Holmoearna)	5142
Oernskoeldsvik – Hoernskaten	5142
Ångermanaelven north Sandoe Bridge	5336
Ångermanaelven south Sandoe Bridge	2126
Sundsvall – Draghaellan	5142
Hudiksvallfjaerden	5142
Iggesund – Agoe	5142
Gaevle – Eggegrund	3122
Hallstavik – Svartklubben	3021
Koeping – Kvicksund	5246
Västerås – Grönsö	5246
Grönsö – Södertälje	5144
Stockholm – Södertälje	5144
Fairway to Karlstad	5242
Fairway to Kristinehamn	5242

Estonia , 21.12.2021

Paernu, port and bay	52/5
Moonsund	2001

Finland , 21.12.2021

Roeyttae – Etukari	8346
Etukari – Ristinmatala	8346
Ajos – Ristinmatala	8346
Ristinmatala – Kemi 2	7146
Kemi 2 – Kemi 1	5146
Sea area SW of Kemi 1	4146
Kemi 2 – Ulkokrunni – Virpiniemi	8346
Oulu harbours – Kattilankalla	8346
Kattilankalla – Oulu 1	5146
Sea area SW of Oulu 1	4746
High Sea N of the latitude of Marjaniemi	3726
Raahe harbour – Heikinkari	7246
Heikinkari – Raahe lighthouse	5146
Raahe lighthouse – Nahkiainen	5146
Rahja harbour – Välimatala	4045
Ykspihlaja – Repsaer	7745
Repskaer – Kokkola lighthouse	3015
Pietarsaari – Kallan	3125
Vaskiluoto – Ensten	7145
Ensten – Vaasa lighthouse	4045
Kaskinen – Sälgrund	3232
Pori harb. to line Pori lighth. – Säppi	1000

Rauma, Harbour – Kylmäpihlaja	3102
Uusikaupunki harbour – Kirsta	3002
Inkoo a. Kantvik – sea area Porkkala	3001
Helsinki harbours – Harmaja	1000
Valko Harbour – Täktarn	2122
Kotka – Viikari	1000
Hamina – Suurmusta	2001

Lettland , 21.12.2021

Riga, port	1000
Liepaja, port	1000

Russian Federation , 21.12.2021

Port of St. Petersburg	51/2
St. Petersburg – E-point island Kotlin	51/2
E-point Kotlin – long. lighth. Tolbuhkin	3000
Vyborg, port and bay	82/2
Island Vichrevoj – Island Sommers	2000