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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 11

Amtsblatt des BSH

Jahrgang 95	Nr. 11	Monday, 13.12.2021	1

Übersicht

In der nördlichen Bottenwiek liegt in den Schären Festeis und weiter außerhalb sehr dichtes Eis und Neueis. In der südlichen Bottenwiek und Norra Kvarken liegt in den Schären dünnes, ebenes Eis, im Osten örtlich auch Festeis, sowie Neueis. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt dünnes ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt dünnes, ebenes Eis oder Neueis entlang der Nordküste und im Osten zumeist dünnes, ebenes Eis oder Festeis. Im Rigaischen Meerbusen befindet sich dünnes, ebenes Eis und Neueis im Moonsund und in der Pärnubucht. Neueis und seltener dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, den Haffgebieten der südöstlichen Ostsee, dem Skagerrak und dem Vänern vor.

Overview

In the northern Bay of Bothnia, there is fast ice in the archipelagoes and very close ice and new ice further out. In the southern Bay of Bothnia and Norra Kvarken, there is thin level ice, in the east also fast ice at places, and new ice. 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 or new ice is present along the northern coast. Thin level ice or fast ice is present in the eastern part. In the Gulf of Riga, there is thin level ice and new ice in Moonsund and Pärnu Bay. New ice and rarely thin level ice occurs at places in the northern Baltic, in the lagoons of the southeastern Baltic, in the Skagerrak and Lake Vänern.

Bay of Bothnia

In the northern Bay of Bothnia, there is 10–25 cm thick fast ice in the archipelagoes. Further out in the east, there is 5–25 cm thick, very close ice to the line Malören – Kemi-1 – Oulu-1 – Raahe. Rafting occurs at places. Off the fast ice in the west, there are areas with 5–15 cm very close ice and new ice further out. In the southern Bay of Bothnia, there is thin level ice or 10–20 cm thick fast ice and new ice further out.
Some ice growth is expected the coming day. The ice drift will be to the northeast/east.

Norra Kvarken

In the archipelagoes off Vaasa, there is 5–20 cm thick fast ice and new ice further out, that extends in a small band from Norrskär to Strömningsbådan. A long the Swedish coast and around Holmöarna, there is mostly thin level ice.
No larger changes are expected the coming day.

Herstellung und Vertrieb
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Sea of Bothnia
On upper Ångermanälven and at places in the northern Sea of Bothnia and along the Finnish coast, there is thin level ice. Else, there is new ice along the coast.
No larger changes are expected the coming day.

Archipelago and Åland Sea
New ice and thin level is present in sheltered places in the Archipelago and Åland Sea.

No larger changes are expected the coming day.

Gulf of Finland
From St. Petersburg to Kotlin and north of Kotlin, there is 5–15 cm thick very close ice. In the Bay of Vyborg, there is 5–15 cm fast ice in the top and farther out first level ice and close nilas. In the Bjerkesund and the entrance, there is very close nilas. In the archipelagoes of the northern coast, there is thin level ice and new ice somewhat further out. Along the southern coast, there is new ice in a few places. In the northern lake Saimaa, there is 5–20 cm thick level ice and new ice. In the southern Lake Saimaa and Saimaa Canal, 5–20 cm thick broken ice occurs.
The coming day no larger changes are expected.

Gulf of Riga
There is very close nilas in Moonsund and nearby shallow bays and on the fairways, there is very open drift ice in the north and close drift ice in the south. In Pärnu Bay, there is thin level ice and new ice further out.
No larger changes the coming day.

Northern Baltic
In Lake Mälaren, thin level ice is present in the westernmost part and some sheltered bays. Else, there is some new ice in sheltered bays along the Swedish coast.
No larger change is expected.

Southeastern Baltic
In the Curonian Lagoon and Vistula Lagoon, new ice is present.

No larger change is expected.

Swedish Lakes
New ice and thin level ice is present in sheltered bays of Lake Vänern.

No larger change is expected.

Skagerrak
New ice is present in a few sheltered bays.

Ice is melting 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	2000 dwt	I	11.12.
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	II	08.12.
	Raahe	2000 dwt	I	11.12.
	Northern Lake Saimaa	2000 dwt	II	08.12.
	Southern Lake Saimaa and Saimaa Canal	2000 dwt	II	11.12.
Sweden	Haraholmen and Skelleftehamn	2000 dwt	II	04.12.
	Karlsborg and Luleå	2000 dwt	IC	11.12.
	Ångermanälven	1300/2000 dwt	IC/II	04.12.
	Köping and Västerås	1300/2000 dwt	IC/II	06.12.

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 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

Estonia, 13.12.2021

Shipping route from Narva-Jõssuu	1000
Kunda, port and bay	1000
Paernu, port and bay	5223
Moonsund	3111

Finland, 13.12.2021

Roeyttae – Etukari	8746
Etukari – Ristinmatala	5756
Ajos – Ristinmatala	5756
Ristinmatala – Kemi 2	5746
Kemi 2 – Kemi 1	5746
Sea area SW of Kemi 1	5246
Kemi 2 – Ulkokrunni – Virpiniemi	8246
Oulu harbours – Kattilankalla	8746
Kattilankalla – Oulu 1	4746
Raahe harbour – Heikinkari	4246
Heikinkari – Raahe lighthouse	4126
Raahe lighthouse – Nahkiainen	1116
Rahja harbour – Välimatala	2015
Vaelimatala to line Ulkokalla – Ykskivi	1015
Ykspihlaja – Repsaer	5745
Repskaer – Kokkola lighthouse	1005
Sea area off Kokkola lighthouse	1005
Pietarsaari – Kallan	1105
Vaskiluoto – Ensten	5245
Ensten – Vaasa lighthouse	1115
Vaasa lighthouse – Norrskaer	1115
Kaskinen – Sälgrund	5242
Sea area off Sälgrund	1001
Rauma, Harbour – Kylmäpihlaja	5142
Kylmäpihlaja – Rauma lighthouse	1000
Uusikaupunki harbour – Kirsta	4142
Naantali and Turku – Rajakari	1000
Koverhar – Hästö Busö	4001
Inkoo a. Kantvik – sea area Porkkala	3001
Helsinki harbours – Harmaja	3001
Valko Harbour – Täktarn	5142
Kotka – Viikari	4001
Hamina – Suurmusta	5142
Suurmusta – Merikari	5142

Russian Federation, 13.12.2021

Port of St. Petersburg	51/2
St. Petersburg – E-point island Kotlin	51/2
E-point Kotlin – long. lighth. Tolbuhkin	4011
Vyborg, port and bay	82/2
Island Vichrevoj – Island Sommers	51/2
Strait Bjerkesund	51/2
E-point Bol'–oj Ber'ozovyj – –epelevskij	40/2

Sweden, 13.12.2021

Karlsborg – Maloeren	8346
Luleå – Bjoernklack	8346
Sandgroenn fairway	8346
Roedkallen – Norstroemsgrund	4046
Haraholmen – Nygrån	8346
Sea area off Nygrån	4046

Skelleftehamn – Gåsoeren	5246
Sea area off Gåsoeren	4046
Sea area off Bjuroeklubb	4041
Western Quark (W of Holmoearna)	5142
Umeå – Vaektaren	5242
Oernskoeldsvik – Hoernskaten	5142
Ångermanaelven north Sandoe Bridge	8344
Ångermanaelven south Sandoe Bridge	8344
Sundsvall – Draghaellan	5142
Hudiksvallfjaerden	4041
Iggesund – Agoe	5041
Sandarne – Haellgrund	5041
Gaevle – Eggegrund	4041
Hallstavik – Svartklubben	5041
Koeping – Kvicksund	5144
Västerås – Grönsö	5144
Stockholm – Södertälje	5144
Norrköping – Hargökalv	5041
Fairway to Karlstad	5142
Fairway to Kristinehamn	5041