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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 33

Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek liegt im Norden 20–40 cm dickes Festeis und im Süden 10–30 cm dickes Festeis. Auf See befindet sehr dichtes, 5–15 cm dickes Eis im Norden und Nordosten und ansonsten sehr lockeres Eis oder offenes Wasser. In Norra Kvarken liegt in den Schären bis zu 35 cm dickes Festeis und auf See kommt offenes Wasser vor. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes ebenes Eis und in den Schären des Schärenmeeres kommt Neueis vor. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 35 cm dickes Festeis. Im östlichen Teil treibt auf See sehr dichtes, 5–15 cm dickes Eis. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht sowie dünnes, ebenes Eis entlang der nordöstlichen Küste. Neueis oder dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, dem Vänern und der südöstlichen Ostsee vor. Neueis kommt in geschützten Buchten der zentralen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt Neueis oder Festeis.

Overview

In the archipelagos of the Bay of Bothnia, there is 20–40 cm thick fast ice in the north and 10–30 cm thick fast ice in the south. At sea, there is very close, 5–15 cm thick ice in the north and northeast and else very open ice or open water. In Norra Kvarken, there is up to 35 cm thick fast ice in the archipelagos and open water at sea. Along the coasts of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice and new ice is present in the archipelagos of the Archipelago Sea. In the Gulf of Finland, there is up to 35 cm thick fast ice along the northern coast and in the easternmost part. At sea in the east, there is mostly very close, 5–15 cm thick ice. In the Gulf of Riga, there is up to 25 cm thick ice in Moonsund and Pärnu Bay and thin level ice in along the northeastern coast. New ice and thin level ice occurs at places in the northern Baltic, Lake Vänern and the southeastern Baltic. New ice occurs in sheltered areas of the central Baltic. Fast ice or new ice is present in some inner fjords of the Skagerrak.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 20–40 cm thick fast ice, from the Finnish coast reaching out to Hebe and Kattilankalla. Off the fast ice in the east, there is 10–35 cm thick consolidated ice to Kemi-2 and Oulu-2. Further out to some nm south and west of the line Malören – Kemi-1 – Raahe, there is very close 5–15 cm thick ice, partly ridged. At the ice edge, there is a brash ice barrier. Off the fast ice in the west, there is very open to open, 5–15 cm thick ice to about Nygrån – Falkensgrund – Malören. In the southern Bay of Bothnia, there is 10–30 cm thick fast ice in the archipelagos. At sea, there is 5–15 cm thick very open ice off Kokkola. Else, there is open water with strings and patches in the Bay of Bothnia.
There will be a strong ice drift to the east/southeast

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and else no larger changes.

Norra Kvarken
In the archipelagoes off Vaasa, there is 10–35 cm thick fast ice to Ensten. Along the Swedish coast, there is 10–25 cm thick fast in the inner archipelagos and thin level ice or very close ice to Holmöarna. At sea, there is open water with strips and patches at places.
There will be a strong ice drift to the east/southeast but else no larger changes.

Sea of Bothnia
On Ångermanälven, there is 15–35 cm thick fast ice and 5–15 cm level ice in the entrance. Else, there is 10–25 cm fast ice or thin level ice in the archipelagos and bays. Further out along the Finnish coast, there is a thin belt of drift ice.
No larger changes but some ice melt are expected the coming day.

Archipelago and Åland Sea
Thin level ice is present in inner archipelagos of the coasts. New ice is present around the Åland islands and the archipelagos and fairways of the eastern coast.
Some ice melt is expected the coming days.

Gulf of Finland
From St. Petersburg up to the dike, there is 25–35 cm thick fast ice. Farther out to Tolbuchin lighthouse, there is 20–30 cm thick fast ice. In the Bay of Vyborg, there is 25–35 cm fast ice. In the Bjerkesund, there is fast ice, 20–30 cm thick, or very close ice. At sea east of about 27°45' E, there is mostly very close, 5–15 cm thick ice. In the archipelagos of the northern coast, there is 20–35 cm fast ice. Off the fast ice, there is thin level ice and very close ice to the line Tiiskeri – Haapasaari. At the southern coast, new ice is present in sheltered bays along the shore. In Lake Saimaa and the Saimaa Canal, there is 20–35 cm thick ice.
Some ice melt is expected the coming day. The ice drift is to the east/southeast.

Gulf of Riga
In Moonsund, there is very close, 10–25 cm thick ice and fast ice in the eastern bays. In the central part, there is thin level ice or very close ice. New ice is present in the northern entrance to Moonsund. At the south coast of Saaremaa, there is thin level ice or very close ice. In Pärnu Bay, there is 10–25 cm thick fast ice or very close ice to Kihnu. From Kihnu to Moonsund, there is very close ice or thin level ice. In the port of Riga, there is very open, 10–15 cm thick ice.
Some ice melt is expected the coming day and the ice drift is to the east/southeast.

Northern Baltic
In Lake Mälaren, there is 5–20 cm thick fast ice or level ice in the western part. The central part is mostly ice free and in sheltered bays further east, there is thin level or new ice. Along the Swedish coast, there is new ice or shuga in some sheltered bays.
Some ice melt is expected the coming days.

Central Baltic
New ice occurs in some sheltered bays along the Swedish coast.
Some ice melt is expected the coming days.

Southeastern Baltic
In the Curonian Lagoon, there is very close ice in the central part and else thin level or new ice. In the Vistula Lagoon, there is new ice.
Some ice melt is expected the coming day.

Skagerrak and Kattegat
In some inner fjords of the Skagerrak, there is fast ice, up to 30 cm thick at a few places, and new ice at places. Else, it is mostly ice free.
Some ice melt is expected the coming day.

Swedish Lakes
New ice as well as thin level ice is present in sheltered bays of Lake Vänern. Along the northern coast, there is 5–20 cm thick fast ice.
Some ice melt is expected 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	IA	11.01.
	Tornio, Kemi and Oulu	**4000 dwt**	**IA**	**16.01.**
	Raahe	2000 dwt	IB	25.12
	Raahe	**4000 dwt**	**IA**	**16.01.**
	Vaasa	2000 dwt	I	22.12.
	Vaasa	**2000 dwt**	**IB**	**16.01.**
	Kokkola	2000 dwt	IB	11.01.
	Kalajoki and Pietarsaari	2000 dwt	IB	11.01.
	Kaskinen, Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali, Turku, Taalintehdas, Förby, Koverhar, Lappohja, Inkoo, Kantvik, 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.
	Lake Saimaa and Saimaa Canal	2000 dwt	IB	06.01.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	27.12.
	Primorsk	-	Ice 1	12.01.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg and Luleå	2000 dwt	IB	06.01.
	Haraholmen and Skelleftehamn	2000 dwt	IB	06.01.
	Holmsund, Rundvik and Husum	2000 dwt	II	22.12.
	Holmsund, Rundvik and Husum	**2000 dwt**	**IC**	**15.01.**
	Örnsköldsvik	2000 dwt	II	22.12
	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.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	03.01.
	Vänern	1300/2000 dwt	IC/II	03.01.

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, URHO, FREJ and YMER assist in the Bay of Bothnia. ALE and ZEUS assist in the Quark and **VOIMA** in the eastern Gulf of Finland. PROTECTOR and METEOR assist in the northern Lake Saimaa. CALYPSO assists in the southern Lake Saimaa and the Saimaa Canal.

Norway

Drammensfjord: Navigation dangerous for low powered vessels. (07.01.2022)
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)
Skåtøysund (Kragerø): Navigation difficult or dangerous for wooden vessels (10.01.22)
Langårsund and 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

Estland, 13.01.2022

Narva-Jõesuu, Fahrwasser	72/2
Kunda, Hafen und Bucht	30/0
Muuga, Hafen und Bucht	1//0
Tallinn, Hafen und Bucht	1//0
Pärnu, Hafen und Bucht	7345
Pärnu – Irbenstraße, Fahrwasser	42/2
Moonsund	52/2

Finnland, 13.01.2022

Röyttä – Etukari	8846
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	5366
Kemi 2 – Kemi 1	5756
Kemi 1, Seegebiet im SW	5256
Kemi 2 – Ulkokrunni – Virpiniemi	7346
Oulu, Hafen – Kattilankalla	8846
Kattilankalla – Oulu 1	6846
Oulu 1, Seegebiet im SW	5756
Offene See N-lich Breite Marjaniemi	2716
Raahe, Hafen – Heikinkari	7346
Heikinkari – Raahe Leuchtturm	6746
Raahe Leuchtturm – Nahkiainen	3716

Breitengrad Marjaniemi – Ulkokalla, See	2716
Rahja, Hafen – Välimatala	5366
Välimatala bis Linie Ulkokalla – Ykskivi	3716
Breitengrad Ulkokalla – Pietarsaari, See	3726
Ykspihlaja – Repskär	7366
Repskär – Kokkola Leuchtturm	5766
Kokkola Leuchtturm, See außerhalb	3726
Pietarsaari – Kallan	7766
Kallan, Seegebiet außerhalb	2216
Breite Pietarsaari – Nordvalen im NE	1216
Nordvalen, Seegebiet im ENE	1716
Nordvalen – Norrskär, See im W	0//6
Vaskiluoto – Ensten	8846
Ensten – Vaasa Leuchtturm	5746
Vaasa Leuchtturm – Norrskär	1216
Norrskär, Seegebiet im SW	0//6
Kaskinen – Sälgrund	5745
Sälgrund, Seegebiet außerhalb	5145
Pori – Linie Pori Leuchtturm – Säppi	4145
Rauma, Hafen – Kylmäpihlaja	5745
Kylmäpihlaja – Rauma Leuchtturm	1115
Rauma Leuchtturm, See im W	0//5
Uusikaupunki, Hafen – Kirsta	5745
Naantali und Turku – Rajakari	4045
Rajakari – Lövskär	1015
Lövskär – Korra	2005
Korra – Isokari	1005
Lövskär – Berghamn	1005
Hanko – Vitgrund	4045
Koverhar – Hästö Busö	4045
Inkoo u. Kantvik – Porkkala See	5745
Helsinki, Hafen – Harmaja	5745
Harmaja – Helsinki Leuchtturm	4045
Helsinki – Porkkala – Rönnskär, Fahrw.	5045
Vuosaari Hafen – Eestiluoto	5745
Porvoo, Hafen – Varlax	5245
Varlax – Porvoo Leuchtturm	3115
Porvoo Leuchtturm – Kalbådagrund	1005
Valko, Hafen – Täktarn	7746
Boistö – Glosholm, Schärenfahrwasser	4145
Glosholm–Helsinki, Schärenfahrwasser	4145
Kotka – Viikari	5246
Viikari – Orrengrund	5246
Orrengrund – Tiiskeri	4146
Tiiskeri – Kalbådagrund	0//6
Hamina – Suurmusta	8846
Suurmusta – Merikari	5246
Merikari – Kaunissaari	4246

Lettland, 13.01.2022

Riga, Hafen	2100

Russische Föderation, 13.01.2022

St. Petersburg, Hafen	83/3
St. Petersburg – Ostspitze Kotlin	83/3
Ostspitze Kotlin – Länge Lt. Tolbuchin	83/3
Lt. Tolbuchin – Lt. Šepelevskij	51/2
Lt. Šepelevskij – Seskar	52/3
Seskar – Sommers	52/3
Vyborg Hafen und Bucht	83/3
Vichrevoj – Sommers	52/3
Bjerkesund	51/2
E-Spitze Bol'šoj Ber'ozovy – Šepelevskij	52/2
Luga Bucht	52/3
Zuf. Luga B. – Linie Mošcnyj-Šepel.	52/3

Schweden, 13.01.2022

Karlsborg – Malören	8446
Malören, Seegebiet außerhalb	5256
Luleå – Björnklack	8446
Björnklack – Farstugrunden	4236
Farstugrunden, See im E und SE	3226
Sandgrönn Fahrwasser	8446
Rödkallen – Norströmsgrund	5236
Haraholmen – Nygrån	8446
Nygrån, Seegebiet außerhalb	1206
Skelleftehamn – Gåsören	5246
Gåsören, Seegebiet außerhalb	5266
Bjuröklubb, Seegebiet außerhalb	3226
Nordvalen, See im NE	1206
Nordvalen, See im SW	1206
Västra Kvarken W-lich Holmöarna	8346
Umeå – Väktaren	5266
Väktaren, See im SE	1206
Örnsköldsvik – Hörnskaten	8346
Ångermanälv oberhalb Sandöbrücke	8444
Ångermanälv unterhalb Sandöbrücke	8444
Härnösand – Härnön	5244
Sundsvall – Draghällan	8346
Hudiksvallfjärden	5246
Iggesund – Agö	5246
Sandarne – Hällgrund	5146
Gävle – Eggegrund	5146
Hallstavik – Svartklubben	5142
Köping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	5144
Stockholm – Södertälje	5144
Södertälje – Fifong	5144
Norrköping – Hargökalv	4041
Karlstad, Fahrwasser nach	8342
Kristinehamn, Fahrwasser nach	8342