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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 37

Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek liegt im Norden 20–50 cm dickes Festeis und im Süden 10–30 cm dickes Festeis. Auf See befindet im Norden und Nordosten dichtes, 10–40 cm dickes, örtlich aufgepresstes Eis. Ansonsten außerhalb des Festeises örtlich lockerem bis dichtem Treibeis, am Eisrand im Osten liegt festgestampftes Eis. In Norra Kvarken liegt in den Schären bis zu 35 cm dickes Festeis und auf See kommt im Norden zumeist dünnes Eis 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 35 cm dickes Festeis. Im östlichen Teil treibt auf See sehr dichtes, 10–20 cm dickes Eis. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht. Dünnes, teilweise ebenes Eis kommt örtlich in der nördlichen Ostsee, dem Vänern und der südöstlichen Ostsee vor. Dünnes Eis kommt in geschützten Buchten der zentralen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt dünnes Eis oder Festeis.

Overview

In the archipelagos of the Bay of Bothnia, there is 20–50 cm thick fast ice in the north and 10–30 cm thick fast ice in the south. At sea, there is very close, 10–40 cm thick very close ice, partly ridged in the north and northeast. Else, outside the fast ice, open to close drift ice at places, with a brash ice barrier at the ice edge in the east. In Norra Kvarken, there is up to 35 cm thick fast ice in the archipelagos and thin ice at sea in the north. 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 35 cm thick fast ice along the northern coast and in the easternmost part. At sea in the east, there is mostly very close, 10–20 cm thick ice. In the Gulf of Riga, there is up to 25 cm thick ice in Moonsund and Pärnu Bay. Thin ice and thin level ice occurs at places in the northern Baltic, Lake Vänern and the southeastern Baltic. Thin ice occurs in sheltered areas of the central Baltic. Fast ice or thin ice is present in some inner fjords of the Skagerrak.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 20–50 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-3 and Oulu-4. Further out to the line Kemi-1 – Merikallat – outside Raahe, there is close 10–40 cm thick ice, partly ridged; in the northeast the ice is difficult to force in places. More in the south, a brash ice barrier is present outside Raahe extending also further south and being difficult to force. On the Swedish side, there is 5-20cm thick close ice around of Falkensgrund and else mostly new ice or open water. In the southern Bay of Bothnia, there is 10–35 cm thick fast ice in the archipelagos. At sea there is a small belt of 10-30cm very close ice with a brash ice

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barriers at the Finnish side. Else, there is some new ice further out. With the wind turning toward the northwest, the temperatures will fall and ice formation can start again with a south/ southeastwards ice drift.

Norra Kvarken

In the archipelagoes off Vaasa, there is 10–35 cm thick fast ice to Ensten. Further out to Norra Globsten 5-20cm thick very close ice. Along the Swedish coast, there is 10–25 cm thick fast in the inner archipelagos and 5-15cm thick close ice west of Holmöarna. At sea in the north there is mostly thin open ice, south of Nordvalen mostly ice free. At night the ice will start drifting southwards and some new ice formation may occur.

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 eastern archipelagos and the bays in the northwest; in the southwestern bays, there is mostly 5-20cm level or fast ice. Along the eastern ice edge, there is thin very close ice and new ice at places. The ice at sea will drift southwards.

Archipelago and Åland Sea

Thin level ice is present in inner archipelagos of the coasts and around the Åland islands. On the larger fairways and the outer archipelago at the eastern coast, there is mainly open water. The ice will drift southwards and disperse at sea.

Gulf of Finland

From St. Petersburg up to longitude of Tolbuchin lighthouse there is 25–35 cm thick fast ice. In the Bay of Vyborg, there is 20–30 cm fast ice. In the Bjerkesund, there is 20–30 cm thick fast ice or 10-15cm thick very close ice. At sea, east of Seskar there is very close, 10–20 cm thick ice. Further west to longitude of lighthouse Sommers there is open water. In the archipelagos of the northern coast, there is fast ice, 10-25cm thick in the west and 20–35 cm thick in the east. Off the fast ice in the northeast, there is thin very open ice. At the southern coast, new ice is present in some sheltered bays along the shore, in Luga and Narva Bay there is fast ice along the coast and further out a fringe with close ice. In Lake Saimaa and the Saimaa Canal, there is 25–40 cm thick ice. A northeasterly ice drift, but else no larger changes are expected.

Gulf of Riga

In Moonsund, there is very close, 10–25 cm thick ice or fast ice along the coasts, in the central part there is open ice. At the south coast of Saaremaa, there is close ice in places and open water further out. In Pärnu Bay, there is 10–25 cm thick fast ice or partly ridged very close ice in the eastern part there is open to close ice in the western part. A north-easterly ice drift is expected.

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. No larger changes are expected.

Central Baltic

New ice occurs in some sheltered bays along the Swedish coast. No larger changes are expected.

Southeastern Baltic

In the Curonian Lagoon, there is very close, 5–10 cm thick ice in the eastern part. No larger changes are expected.

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. Some ice formation may occur in Norwegian fjords.

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 formation may start tomorrow. .

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 and Oulu	4000 dwt	IA	16.01.
	Raahe	2000 dwt	IA	16.01.
	Vaasa	2000 dwt	IB	16.01.
	Kokkola, Kalajoki and Pietarsaari	2000 dwt	IB	11.01.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali, Turku, Koverhar, Lappohja, 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.
	Lake Saimaa and Saimaa Canal	**2000 dwt**	**IA**	**22.01.**
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	**-**	**Ice 2**	**14.01.**
	Primorsk	-	Ice 1	12.01.
	Primorsk	**-**	**Ice 2**	**27.01.**
	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	IC	15.01.
	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.

Information of the Icebreaker Services

Estonia

Icebreaker: EVA-316 assists to the port of Pärnu.

Finland/Sweden

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, 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 assists in the northern Lake Saimaa. CALYPSO assists in the southern Lake Saimaa and the Saimaa Canal.

Norway
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)
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.
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 , 19.01.2022

Narva-Jõesuu, Fahrwasser	72/2
Kunda, Hafen und Bucht	10/0
Pärnu, Hafen und Bucht	7347
Pärnu – Irbenstraße, Fahrwasser	42/2
Moonsund	32/2

Finnland , 19.01.2022

Röyttä – Etukari	8446
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	5876
Kemi 2 – Kemi 1	4376
Kemi 1, Seegebiet im SW	3376
Kemi 2 – Ulkokrunni – Virpiniemi	7876
Oulu, Hafen – Kattilankalla	8446
Kattilankalla – Oulu 1	6846
Oulu 1, Seegebiet im SW	5756
Offene See N-lich Breite Marjaniemi	4756
Raahe, Hafen – Heikinkari	8346
Heikinkari – Raahe Leuchtturm	6766
Raahe Leuchtturm – Nahkiainen	5766
Breitengrad Marjaniemi – Ulkokalla, See	3006
Rahja, Hafen – Välimatala	6366
Välimatala bis Linie Ulkokalla – Ykskivi	4756
Breitengrad Ulkokalla – Pietarsaari, See	3006

Ykspihlaja – Repskär	8346
Repskär – Kokkola Leuchtturm	6766
Kokkola Leuchtturm, See außerhalb	3006
Pietarsaari – Kallan	8346
Kallan, Seegebiet außerhalb	6266
Breite Pietarsaari – Nordvalen im NE	3216
Nordvalen, Seegebiet im ENE	3216
Nordvalen – Norrskär, See im W	0//6
Vaskiluoto – Ensten	8846
Ensten – Vaasa Leuchtturm	5746
Vaasa Leuchtturm – Norrskär	0//6
Kaskinen – Sälgrund	5746
Sälgrund, Seegebiet außerhalb	5266
Pori – Linie Pori Leuchtturm – Säppi	3145
Rauma, Hafen – Kylmäpihlaja	5745
Uusikaupunki, Hafen – Kirsta	8745
Kirsta – Isokari	2215
Naantali und Turku – Rajakari	3015
Rajakari – Lövskär	1005
Lövskär – Korra	1005
Korra – Isokari	1005
Lövskär – Berghamn	1005
Hanko – Vitgrund	1005
Koverhar – Hästö Busö	1005
Inkoo u. Kantvik – Porkkala See	5746
Helsinki, Hafen – Harmaja	5745
Harmaja – Helsinki Leuchtturm	1015
Helsinki Lt. – Porkkala Lt., See im S	0//5
Helsinki – Porkkala – Rönnskär, Fahrw.	2215
Vuosaari Hafen – Eestiluoto	2715
Eestiluoto – Helsinki Leuchtturm	1005
Porvoo, Hafen – Varlax	2115
Varlax – Porvoo Leuchtturm	1115
Porvoo Leuchtturm – Kalbådagrund	0//5
Valko, Hafen – Täktarn	7746
Boistö – Glosholm, Schärenfahrwasser	1115
Glosholm–Helsinki, Schärenfahrwasser	1115
Kotka – Viikari	5246
Viikari – Orrengrund	1215
Orrengrund – Tiiskeri	1125
Tiiskeri – Kalbådagrund	0//5
Hamina – Suurmusta	8846
Suurmusta – Merikari	1216
Merikari – Kaunissaari	1216

Russische Föderation , 19.01.2022

St. Petersburg, Hafen	83/3
St. Petersburg – Ostspitze Kotlin	83/3
Ostspitze Kotlin – Länge Lt. Tolbuchin	83/3
Lt. Tolbuchin – Lt. Šepelevskij	52/3
Lt. Šepelevskij – Seskar	52/3
Seskar – Sommers	2212
Sommers – Südspitze Gogland	2212
Vyborg Hafen und Bucht	83/3
Vichrevoj – Sommers	1201
Bjerkesund	42/2
E-Spitze Bol'šoj Ber'ozovy – Šepelevskij	42/3
Luga Bucht	52/3
Zuf. Luga B. – Linie Mošcnyj-Šepel.	1201

Schweden , 19.01.2022

Karlsborg – Malören	8446
Malören, Seegebiet außerhalb	1006
Luleå – Björnklack	8446
Björnklack – Farstugrunden	5046
Farstugrunden, See im E und SE	5046
Sandgrönn Fahrwasser	8446
Rödkallen – Norströmsgrund	4336
Haraholmen – Nygrån	8446
Skelleftehamn – Gåsören	5246
Gåsören, Seegebiet außerhalb	1006
Bjuröklubb, Seegebiet außerhalb	3026
Västra Kvarken W-lich Holmöarna	8346
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
Ljusnefjärden – Storjungfrun	1106
Gävle – Eggegrund	5146
Hallstavik – Svartklubben	5142
Köping – Kvicksund	8344
Västerås – Grönsö	8344
Karlstad, Fahrwasser nach	8342
Kristinehamn, Fahrwasser nach	8342