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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 63

Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 60 cm dickes Festeis und im Süden bis 30 cm dickes Festeis. Auf das Festeis folgt im Norden bis zu 40 cm dickes zusammenhängendes oder sehr dichtes, örtlich aufgepresstes oder aufgeschobenes Eis. Auf See ansonsten ebenes Eis oder bis 15 cm dickes, dichtes Eis mit örtlich dickeren Schollen. In Kvarken liegt bis 35 cm dickes Festeis in den Schären und Buchten und auf See treibt dichtes bis 15 cm dickes Eis. In der Bottensee und dem Schärenmeer kommt dünnes, ebenes Eis oder Festeis entlang der Küsten vor. Im Mälarsee liegt dünnes, ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 40 cm dickes Festeis und dichtes bis sehr dichtes Eis sowie Neueis auf See im Osten. In den Schären und Buchten entlang der nördlichen Küste kommt Festeis vor. Im Nordosten des Rigaischen Meerbusen befindet sich 10–20 cm dickes Festeis oder sehr dichtes Eis in geschützten Gebieten und Neueis weiter außerhalb.

Overview

In the archipelagos of the Bay of Bothnia, there is up to 60 cm thick fast ice in the north and up to 30 cm thick fast ice in the south. In the north, there is up to 40 cm thick, partly ridged and rafted consolidated or very close ice. Else at sea, there is level ice or up to 15 cm thick, close ice with some thicker floes at places. In the Quark, there is up to 35 cm thick fast ice in the archipelagos and bays and at sea, there is up to 15 cm thick, close ice. In the Sea of Bothnia and the Archipelago Sea, fast ice or thin level ice is present along the coasts. In Lake Mälaren, there is thin level ice and new ice. In the Gulf of Finland, up to 40 cm thick fast ice is present in the easternmost bays and close to very close ice and new ice at sea in the east. In the archipelagos and bays along the northern coast, there is fast ice. In the northeastern Gulf of Riga, there is 10–20 cm thick fast ice or very close ice in sheltered bays and new ice further out.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 25–60 cm thick fast ice and compact, up to 45 cm thick ice towards Malören and off the eastern fast ice. Further out in the northeast, there is 20–40 cm thick, in places ridged very close ice to about Kemi-1 – Oulu-3. Further out to about a line Farstugrunden – Oulu-1, there is 10–30 cm thick, very close and partly rafted ice. Further out there is thin, 5–10 cm thick level ice to about Simpgrund – Falkensgrund – Raahe with some thicker ice floes at places. Further south in the western part is close 2–15 cm thick ice to the Quark. In the southern Bay of Bothnia, there is 20–30 cm thick fast ice in the archipelagos. Off the fast ice in the east, there is a lead with very open thin ice stretching to the fast ice edge in the Quark. Further out there is 5–10 cm thick level ice with an area of some thicker floes stretching northeastwards from about

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64°10'N in the central part.
Ice formation and ice growth continues the coming day and the ice will drift mainly to the east/northeast.

The Quark

There is 10–35 cm thick fast ice in the Vaasa archipelago out to Storhästen. Further out to Ensten, there is very close, 5–20 cm thick ice. On the Swedish side, there is mostly fast ice up to 35 cm thick in inner bays. At sea from coast to coast, there is mostly close, 2-15 cm thick drift ice north of Norrskär.
Ice growth and ice formation continues the coming day. The ice will drift mostly to the east/northeast.

Sea of Bothnia

In the archipelagos along the eastern coast, there is 10–20 cm thick fast ice. Further out in the north, there is new ice and ice formation. Along the western coast, there is thin level ice or new ice in sheltered bays in the south and up to 40 cm thick fast ice in inner bays in the north. On Ångermanälven, there is 20–40 cm thick fast or level ice.
Some ice growth and ice formation is expected the coming day.

Archipelago Sea and Åland Sea

At the eastern coast, there is 5–15 cm fast or level ice in the inner bays. In the western and central part new ice is present along the coasts.

Some ice formation and ice growth are expected the coming day but else no larger changes.

Northern Baltic

In Lake Mälaren, there is 5–15 cm thick fast ice or thin level ice in the western part, with areas of open water. In the eastern part, there is thin ice in sheltered bays. New ice occurs in sheltered places along the outer coast.
No larger changes are expected but some ice formation is possible in sheltered places.

Gulf of Finland

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is 20–40 cm thick fast ice or compact ice. Further west, there is thin level ice to about Moščnyj and Seskar and along the coast to the Bay of Vyborg. In the Bay of Vyborg, there is 15–25 cm thick fast ice and in the Bjerkesund, there is 10–20 cm thick fast ice. In both entrances there is 10–20 cm thick, very close ice. In the area between Seskar and Kotka, there is very close 15–25 cm thick drift ice. Further west to about Gogland and Narva, there is close 2–10 cm thick drift ice and new ice and new ice formation somewhat further west. Along the northern coast, there is 10–25 cm thick fast ice in the eastern archipelagos. Further out, there is thin level ice. In the western archipelagos, there is 5–15 cm thick fast ice and ice formation.
Ice formation and ice growth continues the coming day. The ice will drift to the north/northeast.

Gulf of Riga

In Väinameri, there is 5–15 cm thick very close ice or fast ice near the coasts. On the fairway and between the islands is new ice. Along the coast to the Bay of Pärnu is new ice. In the western part of the Bay of Pärnu, there is 5–15 cm thick, close to very close drift. Else there is new ice to about Häädemeeste.
Some ice formation is expected the coming day. The ice will drift north/northeast.

Skagerrak and Kattegat

Up to 15 cm thick ice or new ice is present in some inner Norwegian Fjords. At a few places thicker ice occurs.

No major changes are expected the coming day.

Swedish Lakes

Thin level ice or new ice is present in some sheltered bays in the northeast of Lake Vänern.

No major changes are expected the coming days.

Dr. W. Aldenhoff

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1 C	23.12.
Finland	Tornio, Kemi and Oulu	4000 dwt	IA	22.02.
	Raahe	2000 dwt	IB	22.02.
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	I	07.01.
	Kaskinen, Inkoo, Kantvik, Helsinki, Sköldvik and Mussalo	2000 dwt	II	07.01.
	Loviisa, Kotka and Hamina	2000 dwt	II	24.12.
Russia	Vyborg and Vysotsk	-	Ice 1	08.02.
Sweden	Karlsborg and Lulea	2000 dwt	IB	08.01.
	Karlsborg	**4000 dwt (2000 t)**	**IA**	**28.02.**
	Lulea	**4000 dwt**	**IA**	**28.02.**
	Haraholmen and Skelleftehamn	2000 dwt	IC	25.12.
	Haraholmen and Skelleftehamn	**2000 dwt**	**IB**	**28.02.**
	Holmsund	2000 dwt	IC	07.02.
	Rundvik and Husum	2000 dwt	II	21.12.
	Örnsköldsvik	2000 dwt	IC	13.02.
	Angermanälven	2000 dwt	IB	07.01.
	Söraker, Sundsvall and Söderhamn	2000 dwt	IC	13.02.
	Köping and Västeras	1300/2000 dwt	IC/II	25.01.
	Balsta	1300/2000 dwt	IC/II	22.12.

Estonia

Icebreakers:
EVA-316 assists in the port of Pärnu.

Finland/Sweden

The Saimaa Canal is closed for traffic since 4th January.

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 82. 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.

The traffic separation schemes in the Quark are temporarily out of use from 7 February due to ice conditions.

Icebreakers:
KONTIO, OTSO, SISU, ATLE, YMER and FREJ assist in the Bay of Bothnia. ZEUS assists in the southern Bay of Bothnia and in the Quark. ALE assists in the Quark. CALYPSO assists in the region of Kotka and Hamina.

Norway

Husøysund and Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. 31.01.23
Tønsberg indre havn (Tønsberg): Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice. 31.01.23

Russia

There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg, Ust-Luga and Primorsk. No sailing of barge by tug to Vyborg and Vysotsk.

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, 23.02.2023

Shipping route from Narva-Jõssuu	3000
Paernu, port and bay	4//5
Moonsund	2001

Finland, 23.02.2023

Röyttä – Etukari	8446
Etukari – Ristinmatala	6456
Ajos – Ristinmatala	6456
Ristinmatala – Kemi 2	5876
Kemi 2 – Kemi 1	5876
Sea area SW of Kemi 1	5876
Kemi 2 – Ulkokrunni – Virpiniemi	6456
Oulu harbours – Kattilankalla	6456
Kattilankalla – Oulu 1	6456
Sea area SW of Oulu 1	5856
High Sea N of the latitude of Marjaniemi	5856
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	8346
Raahe lighthouse – Nahkiainen	5146
Latitude Marjaniemi – Ulkokalla, Sea	5746
Rahja harbour – Välimatala	5756
Vaelimatala to line Ulkokalla – Ykskivi	5146
Sea betw. lat. of Ulkokalla –Pietarsaari	5746
Ykspihlaja – Repskär	7756
Repskär – Kokkola lighthouse	2126
Sea area off Kokkola lighthouse	2126
Pietarsaari – Kallan	7756
Sea area off Kallan	2126
Sea lat. Pietarsaari – NE Nordvalen	4146
Sea area ENE of Nordvalen	4146
Sea area Nordvalen to W of Norrskär	4146
Vaskiluoto – Ensten	7756
Ensten – Vaasa lighthouse	5756
Vaasa lighthouse – Norrskär	4146
Sea area SW of Norrskär	4146
Kaskinen – Sälgrund	0//5
Sea area off Sälgrund	0//5
High sea from N to latitude Yttergrund	3732
Pori harb. to line Pori lighth. – Säppi	4142
Rauma, Harbour – Kylmäpihlaja	4041
Uusikaupunki harbour – Kirsta	8142
Naantali and Turku – Rajakari	5142
Lövskär – Korra	4041
Inkoo a. Kantvik – sea area Porkkala	8145
Helsinki harbours – Harmaja	2005
Vuosaari harbour – Eestiluoto	4045
Porvoo harbours – Varlax	4045
Valko Harbour – Täktarn	5145
Archipelago fairway Boistö – Glosholm	4045
Archipelago fairway Glosholm–Helsinki	4045
Kotka – Viikari	8345
Viikari – Orrengrund	4045
Orrengrund – Tiiskeri	4045
Tiiskeri – Kalbådagrund	4041
Hamina – Suurmusta	5145
Suurmusta – Merikari	4045
Merikari – Kaunissaari	4045

Latvia, 23.02.2023

Port of Riga	1000

Norway, 23.02.2023

Svinesund – Halden	31//
Drammensfjord	1101
Husøysund – Tønsberg channel	8345
Tønsberg, inner harbour	8353
Vestfjord (Tønsberg)	8555
Langårsund (Kragerø)	8144

Russian Federation, 23.02.2023

Port of St. Petersburg	84/3
St. Petersburg – E-point island Kotlin	54/3
E-point Kotlin – long. lighth. Tolbuhkin	4303
Lighth. Tolbuhkin – lighth. –Šepelevskij	51/2
Lighthouse Šepelevskij – island Sescar	52/2
Island Sescar – Island Sommers	41/1
Island Sommers– S-point island Gogland	41/1
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	42/3
Strait Bjerkesund	83/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	42/2
Luga bay	51/2
Appr. Luga bay – line Moš.-Šepel.	51/1

Sweden, 23.02.2023

Karlsborg – Malören	6456
Sea area off Malören	5456
Luleå – Björnklack	8546
Björnklack – Farstugrunden	5336
E and SE of Farstugrunden	5336
Sandgrönn fairway	5336
Rödkallen – Norströmsgrund	5146
Haraholmen – Nygrån	5236
Sea area off Nygrån	5146
Skelleftehamn – Gåsören	5236
Sea area off Gåsören	5146
Sea area off Bjuröklubb	4236
NE of Nordvalen	4236
SW of Nordvalen	4236
Western Quark (W of Holmöarna)	4236
Umeå – Väktaren	5146
SE of Väktaren	4236
Fairway to Husum	4236
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	5146
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	5144
Sundsvall – Draghällan	5146
Draghällan – Åstholmsudde	1006
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sandarne – Hällgrund	8346
Ljusnefjärden – Storjungfrun	8346
Gävle – Eggegrund	1101
Hallstavik – Svartklubben	5142
Köping – Kvicksund	8244
Västerås – Grönsö	8244
Stockholm – Södertälje	4044
Södertälje – Fifong	2024
Fairway to Karlstad	4041
Fairway to Kristinehamn	5142