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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 49

Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek befindet sich bis 55 cm dickes Festeis. Auf See treibt im Norden 10–35 cm dickes, dichtes bis sehr dichtes Treibeis sowie Neueis. In der südlichen Bottenwiek befindet sich in den Buchten dünnes ebenes Eis oder Festeis. In Norra Kvarken liegt bis 35 cm dickes Festeis in den Schären und Buchten und dünnes Eis auf See. 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 sehr dichtes Eis weiter außerhalb. In den Schären und Buchten entlang der Küsten kommt im Norden Festeis vor. Im Nordosten des Rigaischen Meerbusen befindet sich 10–20 cm dickes Festeis oder sehr dichtes Eis in geschützten Buchten.

Overview

In the archipelagos of the Bay of Bothnia, there is up to 55 cm thick fast ice. At sea in the north, there is 10–35 cm thick, close to very close drifting ice and new ice. In the southern Bay of Bothnia, there is thin level ice or fast ice in the inner bays. In the Quark, there is up to 35 cm thick fast ice in the archipelagos and bays and thin ice at sea. In the Sea of Bothnia and the Archipelago Sea, there is fast ice or thin level ice along the coasts. In Lake Mälaren, there is thin level ice and new ice. In the Gulf of Finland, there is up to 40 cm thick fast ice in the easternmost bays and very close ice somewhat further out. In the archipelagos and bays along the coasts, there is fast ice in the north. In the northeastern Gulf of Riga, there is 10–20 cm thick fast ice or very close ice in sheltered bays.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 25–55 cm thick fast ice and very close, up to 40 cm thick ice to Malören and off the eastern fast ice. Further out in the north, there is thin level ice to about Kemi-1. Off the western fast ice, there is new ice to about Falkensgrund. Further east is mostly 10–30 cm thick, very close drift ice. Between 64°20'N and 64°50'N, there is mostly close, 8–20 cm thick drifting ice. In the southern Bay of Bothnia, there is 5–20 cm thick fast ice in the archipelagos. At the fast ice edge in the east, there is shuga in places. Further out at both coasts, there is new ice and ice formation.

New ice formation and ice growth will continue over the weekend. The ice will drift first to the south and later to the northeast.

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The Quark
There is 10–35 cm thick fast ice in the Vaasa archipelago out to Storhästen. Further out to Norrskär, there is thin drift ice with varying concentration. On the Swedish side, there is mostly fast ice in inner bays and new ice further out. At sea, there is new ice and new ice formation.
New ice formation and ice growth is expected over the weekend. The ice will drift to the south and from Saturday noon more to the north/northeast.

Sea of Bothnia
In the archipelagos along the eastern coast, there is 10–20 cm thick fast ice and new ice further out. Along the western coast, there is thin level ice or new ice in sheltered bays in the south and fast ice in inner bays in the north. Further out is new ice formation. On Ångermanälven, there is 10–30 cm thick fast or level ice.
Some new ice formation or ice growth is expected in inner bays and along the coast over the weekend. The ice will drift to the south and from Saturday noon more to the northeast.

Archipelago Sea and Åland Sea
At the eastern coast, there is 3–10 cm fast or level ice in the inner bays and new ice somewhat further ice. In the western part new ice is present along the coast.
Some ice formation and ice growth is expected in sheltered coastal areas over the weekend.

Northern Baltic
In Lake Mälaren, 3–10 cm thick level ice and new ice are present in the western part. In the eastern part, there is new ice and open water. New ice occurs in few sheltered places along the coast.
Over the weekend new ice formation and ice growth is expected along the coast.

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. In the Bay of Vyborg, there is 15–25 cm thick fast ice. Further out, there is 5–20 cm thick, close to very close drift ice to about to about Nerva and eastwards to Šepelevskij. In the Bjerkesund, there is 10–25 cm thick fast ice with 5–15 cm thick, very close ice at the entrance. New ice forms east of Seskar. Along the northern coast, there is 5–20 cm thick fast ice in the eastern archipelagos. Further out, there is very open ice. In the western archipelagos is thin ice.
New ice formation and ice growth is expected over the weekend. The ice will drift to the south and from Sunday more to the northeast.

Gulf of Riga
In Väinameri, there is 10–20 cm thick fast ice or very close ice in sheltered bays. On the fairways, there is open water. In the Bay of Pärnu, there is 10–20 cm thick fast ice along the coast followed by an about 6 NM wide area of very open ice to the line Lindi – Suurna Nina. Further out to the line port of Munalaid – Voiste, there is 10–20 cm thick, close to very close ice. Further south to Kihnu is open water.
Some ice formation and ice growth is expected over the weekend. The ice will drift to the south and from Sunday more to the east.

Skagerrak and Kattegat
Up to 10 cm thick ice or new ice is present in some inner Norwegian Fjords.

Some ice formation in sheltered areas is expected over the weekend.

Swedish Lakes
Thin level ice or new ice is present in few sheltered bays in the north and east of Lake Vänern.

Some ice formation in sheltered areas is expected over the weekend.

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	2000 dwt	IA	01.02.
	Raahe, 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.
	Haraholmen and Skelleftehamn	2000 dwt	IC	25.12.
	Holmsund, Rundvik, Husum and Örnsköldvik	2000 dwt	II	21.12.
	Holmsund	**2000 dwt**	**IC**	**07.02.**
	Angermanälven	2000 dwt	IB	07.01.
	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.

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

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, 03.02.2023

Paernu, port and bay	7385
Moonsund	1//0

Finland, 02.02.2023

Röyttä – Etukari	8446
Etukari – Ristinmatala	7856
Ajos – Ristinmatala	7856
Ristinmatala – Kemi 2	5246
Kemi 2 – Kemi 1	5146
Sea area SW of Kemi 1	5156
Kemi 2 – Ulkokrunni – Virpiniemi	7856
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	7856
Sea area SW of Oulu 1	5356
High Sea N of the latitude of Marjaniemi	5356
Raahe harbour – Heikinkari	5146
Heikinkari – Raahe lighthouse	4746
Raahe lighthouse – Nahkiainen	2006
Latitude Marjaniemi – Ulkokalla, Sea	4356
Rahja harbour – Välimatala	5146
Vaelimatala to line Ulkokalla – Ykskivi	2006
Ykspihlaja – Repskär	4046
Repskär – Kokkola lighthouse	3006
Pietarsaari – Kallan	5746
Sea area off Kallan	1106
Sea lat. Pietarsaari – NE Nordvalen	3136
Sea area ENE of Nordvalen	3136
Sea area Nordvalen to W of Norrskär	3136
Vaskiluoto – Ensten	8746
Ensten – Vaasa lighthouse	4746
Vaasa lighthouse – Norrskär	3136
Sea area SW of Norrskär	3136
Kaskinen – Sälgrund	8745
Sea area off Sälgrund	1005
Pori harb. to line Pori lighth. – Säppi	2000
Rauma, Harbour – Kylmäpihlaja	2000
Uusikaupunki harbour – Kirsta	8142
Naantali and Turku – Rajakari	4041
Rajakari – Lövskär	2000
Inkoo a. Kantvik – sea area Porkkala	8145
Helsinki harbours – Harmaja	2005
Vuosaari harbour – Eestiluoto	1005
Porvoo harbours – Varlax	1005
Valko Harbour – Täktarn	8745
Archipelago fairway Boistö – Glosholm	1005
Kotka – Viikari	8745
Viikari – Orrengrund	3035
Hamina – Suurmusta	8745
Suurmusta – Merikari	3035
Merikari – Kaunissaari	3035

Norway, 03.02.2023

Svinesund – Halden	31//
Drammensfjord	4112
Husøysund – Tønsberg channel	8345
Tønsberg, inner harbour	8353
Vestfjord (Tønsberg)	8555

Langårsund (Kragerø)	8144

Russian Federation, 03.02.2023

Port of St. Petersburg	84/3
St. Petersburg – E-point island Kotlin	54/2
E-point Kotlin – long. lighth. Tolbuhkin	4302
Lighth. Tolbuhkin – lighth. –Šepelevskij	40/2
Lighthouse Šepelevskij – island Sescar	11/1
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	42/3
Strait Bjerkesund	83/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	52/3

Sweden, 03.02.2023

Karlsborg – Malören	8446
Sea area off Malören	5146
Luleå – Björnklack	8446
Björnklack – Farstugrunden	5146
E and SE of Farstugrunden	4046
Sandgrönn fairway	5356
Rödkallen – Norströmsgrund	4046
Haraholmen – Nygrån	4046
Sea area off Nygrån	4046
Skelleftehamn – Gåsören	5236
Sea area off Gåsören	4046
Sea area off Bjuröklubb	5046
NE of Nordvalen	5046
SW of Nordvalen	5046
Western Quark (W of Holmöarna)	5046
Umeå – Väktaren	5046
SE of Väktaren	5046
NE and SE of Sydostbrotten	5046
Fairway to Husum	5046
Örnsköldsvik – Hörnskaten	8246
Hörnskaten – Skagsudde	3226
Sea area off Skagsudde	5046
Ångermanälven north Sandö Bridge	8344
Ångermanälven south Sandö Bridge	8344
Härnösand – Härnön	4044
Sundsvall – Draghällan	5242
Hudiksvallfjärden	5242
Iggesund – Agö	5242
Sandarne – Hällgrund	5142
Ljusnefjärden – Storjungfrun	5142
Gävle – Eggegrund	4041
Öregrundsgrepen	4041
Hallstavik – Svartklubben	5142
Köping – Kvicksund	5144
Västerås – Grönsö	5144
Grönsö – Södertälje	1004
Stockholm – Södertälje	5044
Södertälje – Fifong	4044
Fairway to Karlstad	5142
Fairway to Kristinehamn	5142