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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 51

Amtsblatt des BSH

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 60 cm dickes, in den südlichen bis 45 cm dickes Festeis. Auf See treibt zumeist 20–50 cm dickes, sehr dichtes Eis, örtlich aufgepresst und übereinandergeschoben und teilweise scher zu passieren. Entlang der schwedischen Küste ist eine breite Rinne mit sehr lockerem Eis. An den Küsten von Norra Kvarken liegt bis 45 cm dickes Festeis und auf See treibt im Norden 5–30 cm dickes, dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 45 cm und im Westen bis 30 cm dickes Festeis vor. Davor treibt im Osten ein dünnes Band sehr dichtes Eis. Das Schärenmeer ist mit ebenen Eis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 45 cm dickes Festeis und ganz im Osten treibt auf See sehr dichtes, bis 30 cm dickes Eis. Außerhalb der nördlichen Küste treibt lockeres Eis. Im Rigaischen Meerbusen kommt im Nordosten bis zu 35 cm dickes Festeis vor und entlang der nördlichen Küste treibt sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und der schwedischen Küste im Südosten etwas dickeres Eis vor.

Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 60 cm thick in the north and up to 45 cm thick in the south. At sea there is mostly 20–50 cm thick, very close, partly ridged and rafted ice that is difficult to force at places. Along the Swedish coast runs a wide lead with very open ice. In the Quark there is up to 45 cm thick fast ice at the coasts and at sea there is 5–40 cm thick close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 45 cm thick in the east and up to 30 cm thick in the west. Further out in the east there is a narrow band of very close ice. Level ice covers the Archipelago Sea. There is up to 45 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the easternmost part there is up to 30 cm thick very close ice at sea and open ice off the northern coast. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and along the northern coast there is very close ice. Else thicker ice is present in the Mälaren, Vänern, Norwegian fjords and the southeastern Swedish coast.

Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice with some consolidated ice further out; 30–50 cm thick in the northwest, 40–60 cm thick in the northeast and up to 25–45 cm thick in the southern part. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe. At sea there is mostly 20–50 cm thick, very close, ridged and rafted ice. The ice field is under pressure and difficult to force at places. Along the Swedish coast there is a wide lead with very open ice from south of Simpgrund to Holmöarna. In the southernmost part there is close to very open drift ice.
With temperatures around 0 °C no larger changes are expected. The ice will drift to the northeast.

Herstellung und Vertrieb
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The Quark
There is 20–45 cm thick fast ice in the Vaasa archipelago out to Ensten. Along the Swedish coast there is up to 40 cm thick fast ice and 10–30 cm thick, very close ice to Holmöarna. At sea, there is 10–40 cm thick, close to very open ice northeast of Nordvalen.
With temperatures slightly above or around 0 °C no larger changes are expected. The ice will drift to the northeast.

Sea of Bothnia
Along the coasts there is mostly fast ice in the inner bays; 20–45 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–30 cm thick fast ice. Off the Finnish coast is a narrow band with 5–30 cm thick, very close ice and new ice.
With temperatures slightly above or around 0 °C no larger changes are expected.
There is a decreasing ice drift to the northeast/east.

Archipelago Sea and Åland Sea
In the Archipelago Sea there is 20–40 cm thick fast ice in the inner archipelago of the Finnish coast and 5–15 cm thick, level ice reaching to the Åland Islands. In the Åland Sea there is 5–15 cm thick fast or level ice in bays along the coast.
With temperatures slightly above or around 0 °C no larger changes are expected.

Northern Baltic
In Lake Mälaren there is 5–20 cm thick fast ice. At the outer Swedish coast there is 5–15 cm thick fast ice or level ice and some new ice slightly further out.
With temperatures around 0 °C no larger changes are expected.

Gulf of Finland
From St. Petersburg to past Kotlin there is 30–40 cm thick fast ice. Further out is very close, 10–30 cm thick ice north of about the line Šepelevskij – Moščnyj. In Luga Bay and Narva Bay, there is open to very open, 5–20 cm thick drift ice. In the Bjerkesund there is 10–20 cm thick fast and in the Vyborg Bay there is 20–35 cm thick fast ice. Along the northern coast there fast ice in the archipelago, 10–35 cm thick in the west and up to 45 cm thick in the east. Further out, there is first very close, 5–30 cm thick ice followed by open ice to about Merikari and Orrengrund.
With temperatures around 0 °C no larger changes are expected the coming day. The ice will drift decreasingly to the northeast and later east.

Gulf of Riga
In Väinameri there is 25–35 cm thick fast ice near the coasts and very close, 5–20 cm thick ice at sea. Off the southern coast of Saarema there is a band of very close ice. In the Bay of Pärnu, there is 25–35 cm thick fast ice to the line Liu – Tahkuranna followed by very close ice to about the line Kihnu – Kabli. In Irben Strait is open water.
With temperatures slightly above 0 °C some ice melt is possible, but else no larger changes are expected. The ice will drift decreasingly to the northeast/north.

Central Baltic
Thin level ice is present along the Swedish coast. In the Kalmarsund there is some close to very open ice around Kalmar. New ice is present at few places along the coasts of Öland and around Gotland.
With temperatures above 0°C some ice melt is expected the coming day.

Southeastern Baltic
Mostly 15–20 cm thick, very close ice with some open water in the southwestern part is present in the Curonian Lagoon. In Vistula Lagoon some very close thin ice is present in the northeast elsewhere is open water.
With temperatures mostly slightly above 0°C some ice melt is expected the coming day.

Southern Baltic
Some thin ice is present along the coast from around Karlskrona.
With temperatures mostly above 0°C, some further ice melt is expected.

Skagerrak and Kattegat

In the Svinesund there is 15–30 cm thick open ice, in the Mossesundet and Drammensfjord there is a lead in very close, mostly thicker than 30 cm ice. Near Tønsberg there is 10–15 cm thick fast ice in places. Near Kragerø there is 10–15 cm thick fast ice in places. New ice can also be found in other Norwegian Fjords. Along the Swedish coast, there is new ice in some sheltered areas. Kattegat is mostly ice free.
With temperatures mostly above 0°C some ice melt is expected the coming day but else no larger changes.

Swedish Lakes

In Lake Vänern 5–20 cm thick fast ice is present in northern bays and 10–30 cm thick fast ice in southern bays. Along the coast southeast of Åmal, there is close ice. At sea, there is very open ice in the western and southern part and else open water.
With temperatures slightly above 0 °C some ice melt is possible but else no larger changes are expected.

Dr. W. Aldenhoff

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1800 kW	1B (Lloyd's)	27.01.
	Kunda and Sillamäe	**1200 kW**	**II (Lloyd's)**	**04.02.**
Finland	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super/IA	13.01.
	Vaasa	2000 dwt	IA	10.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Pori and Rauma	2000 dwt	I	13.01.
	Kaskinen, Kristiinankaupunki and Uusikaupunki	2000 dwt	IB	23.01.
	Eckerö, Maarianhamina and Langnäs	2000 dwt	II	13.01.
	Naantali and Turku	2000 dwt	I	23.01.
	Mussalo	**2000 dwt**	**IB**	**29.01.**
	Helsinki and Sköldvik	**2000 dwt**	I	**29.01.**
	Taalintehdas, Förby, Koverhar, Lappohja, Inkoo and Kantvik	2000 dwt	I	13.01.
	Hanko	2000 dwt	II	13.01.
	Loviisa, Kotka and Hamina	**2000 dwt**	**IB**	**29.01.**
	Lake Saimaa	2000 dwt	IA	08.01.
	Saimaa Canal	2000 dwt	IA	08.01.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	30.12.
	Primorsk	**-**	**Ice 1**	**01.02.**
	Ust-Luga	-	Ice 1	29.12.
Sweden	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea	4000 dwt	IA	14.01.
	Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örnsköldsvik	2000 dwt	IB	17.01.
	Holmsund	2000 dwt	IB	04.01.

	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet	2000 dwt	IB	17.01.
	Gävle	2000 dwt	IB	17.01.
	Hargshamn	2000 dwt	IC	04.01.
	Skutskär and Öregrund	2000 dwt	IB	17.01.
	Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
	Kappelskär, Stockholm, Nynäshamn and Södertälje	2000 dwt	II	04.01.
	Köping and Västeras	2000 dwt	IB	04.01.
	Balsta	2000 dwt	IB	14.01.
	Oxelösund, Norrköping, Västervik, Oskarshamn, Mönsteras, Kalmar, Degerhamn, Berkvara, Karlskrona, Stenungsund and Uddevalla	2000 dwt	II	04.01.
	Trollhätte Canal and Göta Älv	2000 dwt	IB	16.01.
	Vänern	2000 dwt	IB	16.01.

Estonia

Icebreaker: EVA-316 assists to the port of Pärnu. **BOTNICA** assists to the ports of Kunda and Sillamäe.

Finland/Sweden

The traffic separation schemes in the Lake Vänern are temporarily out of use from 12 January due to ice conditions.
The transit traffic west of Holmöarna is temporarily prohibited. Kalmarsund and Öregrundsgrepen: Transit traffic for low powered vessels is not recommended.
The traffic separation schemes in the Quark are temporarily out of use from 20 December due to ice conditions.
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: YMER, BRAGE VIKING, ODEN, FREJ, KONTIO, OTSO and URHO assist in the Bay of Bothnia. POLARIS, ATLE and SISU assist in the southern Bay of Bothnia and in the Quark. ZEUS and BALTICA assist in the Sea of Bothnia. VOIMA, CALYPSO, FENNICA and NORDICA assist the Gulf of Finland. ALE and EMBLA assist in Vänern.

Norway

Mossesundet (Moss): Icebreaker assistance can only be given to vessels of special ice class and of special size. (05.01.24)
Drammensfjorden (Drammen), Kilsfjorden (Kragerø) and Hellefjorden (Kragerø): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (08.01.24)
Langårsund (Kragerø): Navigation temporarily closed. (08.01.24)

Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga.
Barge towed by tug not allowed to navigate in ice.

Icebreakers: Several icebreakers assist vessels to the port of St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga.

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, 29.01.2024

Shipping route from Narva-Jõssuu	1///
Paernu, port and bay	8355
Irben Strait	1///
Moonsund	7353

Finland, 29.01.2024

Röyttä – Etukari	8446
Etukari – Ristinmatala	7476
Ajos – Ristinmatala	7476
Ristinmatala – Kemi 2	5476
Kemi 2 – Kemi 1	5476
Sea area SW of Kemi 1	5476
Kemi 2 – Ulkokrunni – Virpiniemi	7476
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	7476
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8446
Heikinkari – Raahe lighthouse	6856
Raahe lighthouse – Nahkiainen	6856
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	7376
Vaelimatala to line Ulkokalla – Ykskivi	5476
Sea betw. lat. of Ulkokalla –Pietarsaari	5476
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	7476
Sea area off Kokkola lighthouse	5476
Pietarsaari – Kallan	8846
Sea area off Kallan	8846
Sea lat. Pietarsaari – NE Nordvalen	4376
Sea area ENE of Nordvalen	4376
Sea area Nordvalen to W of Norrskär	1106
Vaskiluoto – Ensten	7376
Ensten – Vaasa lighthouse	2326
Vaasa lighthouse – Norrskär	2326
Sea area SW of Norrskär	0//6
Kaskinen – Sälgrund	8846
Sea area off Sälgrund	7756
High sea from N to latitude Yttergrund	4756
Pori harb. to line Pori lighth. – Säppi	4756
Sea W of line Pori lighthouse – Säppi	4756
High sea betw. lat. Yttergrund a. Rauma	0//6
Rauma, Harbour – Kylmäpihlaja	8846
Kylmäpihlaja – Rauma lighthouse	7756
Sea area W of Rauma lighthouse	4756
The high sea S of the latitude of Rauma	1106
Uusikaupunki harbour – Kirsta	8846
Kirsta – Isokari	7756
Isokari – Sandbäck	2126
Sea area off Sandbäck	5146
Sea area N of Sälskär	5145
Sea area N of Märket	1105
Sea area W of Märket	1105

Maarianhamina – Marhällan	5145
Sea area off Nyhamn and Marhällan	0//5
Sea area S of Lågskär	0//5
Naantali and Turku – Rajakari	8846
Rajakari – Lövskär	8846
Lövskär – Korra	8846
Korra – Isokari	5146
Lövskär – Berghamn	5146
Berghamn – Stora Sottunga	1106
Stora Sottunga – Ledskär	5146
Sea area at Rödhamn	1106
Lövskär – Grisselborg	5146
Grisselborg – Norparskär	5146
Sea area at Vidskär	1106
Hanko harbours – Hanko 1	5745
Sea area S of Hanko 1	1105
Hanko – Vitgrund	5142
Vitgrund – Utö	5745
Koverhar – Hästö Busö	7746
Hästö Busö – Ajax	5746
Inkoo a. Kantvik – sea area Porkkala	7756
Sea area at Porkkala	0//6
Helsinki harbours – Harmaja	7756
Harmaja – Helsinki lighthouse	3736
Fairway Helsinki – Porkkala – Rönnskär	7756
Vuosaari harbour – Eestiluoto	8346
Eestiluoto – Helsinki lighthouse	3736
Porvoo harbours – Varlax	7756
Varlax – Porvoo lighthouse	5756
Porvoo lighthouse – Kalbådagrund	0//6
Valko Harbour – Täktarn	7756
Archipelago fairway Boistö – Glosholm	5756
Archipelago fairway Glosholm–Helsinki	7756
Kotka – Viikari	8346
Viikari – Orrengrund	7356
Orrengrund – Tiiskeri	5756
Tiiskeri – Kalbådagrund	1726
Hamina – Suurmusta	8346
Suurmusta – Merikari	7356
Merikari – Kaunissaari	5356

Latvia, 28.01.2024

Port of Riga	1000
Riga to the Cape of Mersrags, fairway	1000

Norway, 29.01.2024

Svinesund – Halden	33//
Mossesund	9836
Drammensfjord	9955
Tønsberg, inner harbour	82/3
Vestfjord (Tønsberg)	82/3
Larviksfjorden (Stavern – Larvik)	121/
Langårsund (Kragerø)	8248

Russian Federation, 29.01.2024

Port of St. Petersburg	89//
St. Petersburg – E-point island Kotlin	89//
E-point Kotlin – long. lighth. Tolbuhkin	89//
Lighth. Tolbuhkin – lighth. –Šepelevskij	53//
Lighthouse Šepelevskij – island Sescar	53//
Island Sescar – Island Sommers	52//
Vyborg, port and bay	83//
Island Vichrevoj – Island Sommers	53//
Strait Bjerkesund	82//
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53//
Luga bay	31//
Appr. Luga bay – line Moš.-Šepel.	21//

Sweden, 29.01.2024

Karlsborg – Malören	8546
Sea area off Malören	8446
Luleå – Björnklack	8446
Björnklack – Farstugrunden	5476
E and SE of Farstugrunden	5476
Sandgrönn fairway	8446
Rödkallen – Norströmsgrund	8446
Haraholmen – Nygrån	8446
Sea area off Nygrån	5476
Skelleftehamn – Gåsören	8446
Sea area off Gåsören	8446
Sea area off Bjuröklubb	8446
NE of Nordvalen	1206
SW of Nordvalen	1206
Western Quark (W of Holmöarna)	5366
Umeå – Väktaren	8446
SE of Väktaren	1206
Fairway to Husum	1206
Örnsköldsvik – Hörnskaten	8346
Hörnskaten – Skagsudde	8346
Sea area off Skagsudde	1206
Fairway W of Ulvöarna	4236
Sea area E of Ulvöarna	1206
Ångermanälven north Sandö Bridge	8344
Ångermanälven south Sandö Bridge	8344
Härnösand – Härnön	4234
Sea area off Härnö	1206
Sundsvall – Draghällan	8346
Draghällan – Åstholmsudde	1206
Off Åstholmsudde and Brämön	1206
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sea area off Agö	1206
Sandarne – Hällgrund	8346
Sea area off Hällgrund	1206
Ljusnefjärden – Storjungfrun	8346
Sea area off Storjungfrun	1206
Gävle – Eggegrund	8346
Sea area off Eggegrund	1206
Sea area off Orskär	1206
Öregrundsgrepen	8246
Passage at Grundkallen	1206
Hallstavik – Svartklubben	8246
Trälhavet – Furusund – Kapellskär	8246
Stockholm – Trälhavet – Klövholmen	8246
Klövholmen – Sandhamn	8246
Köping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	8344
Stockholm – Södertälje	8344
Södertälje – Fifong	8244

Norrköping – Hargökalv	8246
Hargökalv – Vinterklasen – N Kränkan	3126
Järnverket-Lillhammaren – N Kränkan	3226
Västervik – Marsholmen – Idö	5246
Blå Jungfrun – Kalmar	4136
Kalmar – Utgrunden	1106
Uddevalla – Stenungsund	4136
Vänersborgsviken	8346
Fairway through Lurö archipelago	4256
Fairway to Gruvön	8346
Fairway to Karlstad	8346
Fairway to Kristinehamn	8346
Fairway to Otterbäcken	8346
Fairway to Lidköping	8346