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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 68

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 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–60 cm dickes, sehr dichtes Eis, örtlich aufgepresst, übereinandergeschoben und teilweise schwer zu passieren. Im Süden treibt auf See 5–35 cm dickes, sehr dichtes Eis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See treibt meist 10–35 cm dickes, dichtes bis sehr dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Auf See treibt im Norden zumeist dichtes, 5–35 cm dickes Eis. Im Süden befindet sich im Osten sehr lockeres bis dichtes Eis außerhalb der Küste und im Osten eine dünnes band mit Trümmereis verschiedener Konzentration. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt und in der Ålandsee treibt sehr lockeres, dünnes Eis. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Im Norden treibt westlich von Gogland meist sehr dichtes, 5–25 cm dickes Eis und im Osten 10–35 cm dickes, sehr dichtes Eis. Im Rigaischen Meerbusen kommt im Nordosten zu 35 cm dickes Festeis vor. Auf See treibt im Norden entlang der Küste dichtes bis sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Kalmar bis 30 cm dickes Festeis oder dünnes, ebenes 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 50 cm thick in the south. At sea in the north, there is mostly 30–60 cm thick, very close, partly ridged and rafted ice that is difficult to force at places. At sea in the south there is 10–35 cm thick very close ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea there is mostly 10–35 cm thick, close to very close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 55 cm thick in the east and up to 30 cm thick in the west. At sea in the north there is mostly close, 5–35 cm thick ice. In the southern part there is very open to close drift ice off the coast in the west and a narrow band brash ice of varying concentration in the east. Level ice or fast ice covers large parts of the Archipelago Sea and thin very open drift ice is present in the Åland Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the northern part west of Gogland there is mostly very close, 5–25 cm thick drift ice and in the east is 10–35 cm thick, very close ice. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and close to very close ice is present off the coast in the north. Else up to 30 cm thick fast ice or thin level ice is present in the Mälaren, Vänern, Norwegian fjords and along the Swedish coast north of Kalmar.

Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 35–60 cm thick in the north and up to 25–50 cm thick in the southern part. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-

Herstellung und Vertrieb
Bundesamt für Seeschifffahrt und Hydrographie (BSH)
www.bsh.de/eis
www.bsh.de/ice

Eisauskünfte / Ice Information
Telefon: +49 (0) 381 4563 -780
Telefax: +49 (0) 381 4563 -949
E-Mail: ice@bsh.de

3 and Raahe lighthouse. Off the fast ice along the Swedish coast there is a lead with new ice and very open ice in the south from the Quark to Rödkallen. At sea north of about Ulkokalla is mostly 30–60 cm thick, ridged and rafted drift ice that is difficult to force at places. In the southern part, there is mostly very close ice, 10–35 cm thick in the west and 5–20 cm thick in the east.
With mostly light frost and temperatures around 0 °C along the eastern coast some ice formation and ice growth is expected. The ice will continue to drift in northerly directions.

The Quark

There is 35–50 cm thick fast ice in the Vaasa archipelago out to Ensten followed by 10–30 cm thick very close ice to Norrskär. Along the Swedish coast there is up to 40 cm thick fast ice. At sea there is new ice off the Swedish coast and mostly close, 10–35 cm thick drift ice in the southern part. In the northern part is very close, 10–35 cm thick ice and 5–20 cm thick, very close in the east.
With mostly light frost at sea, some ice formation and ice growth is expected. The ice will drift to the north.

Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 10–35 cm thick fast ice. At sea north of about 62°30'N there is new ice along the western coast and mostly close drift ice, 5–35 cm thick in the north and 10–20 cm thick in the south. Further south off the western coast, there is first very open ice followed by mostly close, 10–20 thick drift ice. Off the fast ice in the east there is brash ice of varying concentration.
With mostly light frost in the north and temperatures around 0 °C in the south some ice formation and ice growth is possible in the north. The ice will drift in northerly directions.

Archipelago Sea and Åland Sea

In the Archipelago Sea there is 15–50 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, level ice or fast ice is present in the outer archipelagos to the Åland Islands. In the Åland Sea there is 5–20 cm thick fast or level ice in bays along the coast. At sea there is thin, very open drift ice.
With temperatures mostly slightly above 0 °C no larger changes are expected and the ice will drift in northerly directions.

Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. Along the outer Swedish coast there is 5–20 cm thick fast ice or level ice.
With temperatures mostly slightly above 0°C and light winds no larger change is expected.

Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–40 cm thick in the west and up to 55 cm thick in the east. In the Vyborg Bay there is 30–40 cm thick fast ice and in the Bjerkesund there is 25–35 cm thick fast ice. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 35–45 cm thick fast ice. Off the northern fast ice follows a band of very close ice. Northeast of the line Gogland – Luga Bay there is mostly close, 10–35 cm thick drift ice. Further west and north of about the line Rodser –Helsinki lighthouse – Porkkala there is mostly very close, 5–25 cm thick drift ice and thin level ice along the fast ice. Else at sea in the eastern part and along the ice edge is open water.
With temperatures around 0 °C no larger changes are expected but the ice will drift in northerly directions.

Gulf of Riga

In Väinameri there is 25–35 cm thick fast ice near the coasts and very close, 10–30 cm thick ice at sea. Off the south coast of Saaremaa there is close to very close, 5–20 cm thick ice to about 10 NM off the coast. In the Bay of Pärnu, there is 25–45 cm thick fast ice to about the line Liu – Tahkuranna. Further out there is close, 5–30 cm thick ice to about the line Sorgu – Kabli. Even further out to the line southern point of Kihnu – Ainazi is open water. In Irben Strait is close drift ice in the north and open water in the south.
With temperatures mostly slightly above 0 °C no larger changes but some ice melt is possible. The ice will drift in northerly directions.

Central Baltic

Thin level ice is present at places along the Swedish coast.
With temperatures mostly above 0 °C some ice melt is expected.

Southeastern Baltic
In the Curonian Lagoon, there are some remnants of drift ice and else open water.

With temperatures mostly above 0°C further ice melt is expected.

Skagerrak and Kattegat
In some sheltered Norwegian fjords and bays is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund, Mossesund and Drammensfjord. Along the Swedish coast of the Skagerrak there is very open ice in few sheltered areas.
With temperatures mostly above 0 °C no larger changes are expected but some ice melt is possible.

Swedish Lakes
In Lake Vänern 10–30 cm thick fast ice is present at the coasts. In the Dalbosjön there is 10–20 cm thick, mostly close to very close drift ice. In the Värmlandssjön there is very open ice in the southern, western and northern coast as some close drift ice in the northwest.
With temperatures mostly above 0°C no larger changes are expected but some ice melt is possible.

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	2000 dwt	IB	17.02.
	Rauma	2000 dwt	IB	14.02.
	Kaskinen and Kristiinankaupunki	2000 dwt	IA	17.02.
	Uusikaupunki	2000 dwt	IA	11.02.
	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.
	Koverhar, Lappohja, Inkoo and Kantvik	2000 dwt	I	13.01.
	Taalintehdas and Förby	2000 dwt	IB	17.02.
	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, Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örnsköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IA	17.02.
	Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet	2000 dwt	IB	17.01.
	Härnösand, Söråker and Sundsvall	2000 dwt	IA	19.02.
	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, Bergkvara, 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, ODEN, FREJ, POLARIS, SISU and URHO assist in the Bay of Bothnia. ATLE, KONTIO and OTSO assist in the southern Bay of Bothnia and in the Quark. ZEUS, CALYPSO, BALTICA and BRAGE VIKING assist in the Sea of Bothnia. VOIMA, FENNICA and NORDICA assist the Gulf of Finland. ALE and SCANDICA assists in the Vänern.

Norway

Mossesundet (Moss): Icebreaker assistance can only be given to vessels of special ice class and of special size. (05.01.24)
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)

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, 21.02.2024

Shipping route from Narva-Jõssuu	1///
Kunda, port and bay	1///
Shipping route Kunda meridian to Tallinn	1///
Paernu, port and bay	7475
Irben Strait	323/
Moonsund	7353

Finland, 21.02.2024

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	7476
Vaelimatala to line Ulkokalla – Ykskivi	5476
Sea betw. lat. of Ulkokalla –Pietarsaari	5476
Ykspihlaja – Repskär	7476
Repskär – Kokkola lighthouse	5476
Sea area off Kokkola lighthouse	5756
Pietarsaari – Kallan	7366
Sea area off Kallan	5366
Sea lat. Pietarsaari – NE Nordvalen	5356
Sea area ENE of Nordvalen	5356
Sea area Nordvalen to W of Norrskär	4346
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5366
Vaasa lighthouse – Norrskär	5366
Sea area SW of Norrskär	5366
Kaskinen – Sälgrund	8446
Sea area off Sälgrund	7366
High sea from N to latitude Yttergrund	5366
Pori harb. to line Pori lighth. – Säppi	7366
Sea W of line Pori lighthouse – Säppi	5366
High sea betw. lat. Yttergrund a. Rauma	4746
Rauma, Harbour – Kylmäpihlaja	7766

Kylmäpihlaja – Rauma lighthouse	5146
Sea area W of Rauma lighthouse	3736
The high sea S of the latitude of Rauma	4746
Uusikaupunki harbour – Kirsta	8346
Kirsta – Isokari	7766
Isokari – Sandbäck	3736
Sea area off Sandbäck	3736
Sea area N of Sälskär	5145
Sea area N of Märket	4745
Sea area W of Märket	5745
Sea area S of Märket	2125
Maarianhamina – Marhällan	2725
The middle Åland Sea	2125
Naantali and Turku – Rajakari	8846
Rajakari – Lövskär	8846
Lövskär – Korra	7766
Korra – Isokari	5766
Lövskär – Berghamn	8346
Berghamn – Stora Sottunga	5146
Stora Sottunga – Ledskär	8746
Sea area at Rödhamn	1106
Lövskär – Grisselborg	8346
Grisselborg – Norparskär	5146
Sea area at Vidskär	1106
Utö – Suomen Leijona	1106
Hanko harbours – Hanko 1	1105
Sea area S of Hanko 1	1105
Hanko – Vitgrund	8342
Vitgrund – Utö	5145
Koverhar – Hästö Busö	8346
Hästö Busö – Ajax	1106
Sea area S of Ajax	1106
Inkoo a. Kantvik – sea area Porkkala	7756
Sea area at Porkkala	2756
Sea area S of Porkkala lighthouse	2126
Helsinki harbours – Harmaja	8846
Harmaja – Helsinki lighthouse	5756
Helsinki lighth. – sea S of Porkkala lh.	1106
Fairway Helsinki – Porkkala – Rönnskär	5756
Vuosaari harbour – Eestiluoto	8846
Eestiluoto – Helsinki lighthouse	5756
Porvoo harbours – Varlax	5146
Varlax – Porvoo lighthouse	5756
Porvoo lighthouse – Kalbådagrund	5756
Sea Kalbådagrund – Helsinki lighthouse	5756
Valko Harbour – Täktarn	7746
Archipelago fairway Boistö – Glosholm	5746
Archipelago fairway Glosholm–Helsinki	8846
Kotka – Viikari	8346
Viikari – Orrengrund	5746
Orrengrund – Tiiskeri	5756
Tiiskeri – Kalbådagrund	5756
Hamina – Suurmusta	8446
Suurmusta – Merikari	7746
Merikari – Kaunissaari	5746

Latvia, 21.02.2024

Irben Strait, fairway	3112

Norway, 21.02.2024

Svinesund – Halden	33//
Mossesund	3725
Drammensfjord	3313
Tønsberg, inner harbour	82/3
Vestfjord (Tønsberg)	82/3
Larviksfjorden (Stavern – Larvik)	121/
Langårsund (Kragerø)	1001

Russian Federation, 21.02.2024

Port of St. Petersburg	89//
St. Petersburg – E-point island Kotlin	89//
E-point Kotlin – long. lighth. Tolbuhkin	89//
Lighth. Tolbuhkin – lighth. –Šepelevskij	11//
Lighthouse Šepelevskij – island Sescar	32//
Island Sescar – Island Sommers	42//
Island Sommers– S-point island Gogland	42//
S-point isl. Gogland – long. p. Kunda	22//
Vyborg, port and bay	89//
Island Vichrevoj – Island Sommers	42//
Strait Bjerkesund	89//
E-point Bol'šoj Ber'ozovyj – Šepelevskij	22//
Luga bay	32//
Appr. Luga bay – line Moš.-Šepel.	32//

Sweden, 21.02.2024

Karlsborg – Malören	8546
Sea area off Malören	5576
Luleå – Björnklack	8546
Björnklack – Farstugrunden	5576
E and SE of Farstugrunden	5576
Sandgrönn fairway	8546
Rödkallen – Norströmsgrund	4046
Haraholmen – Nygrån	8546
Sea area off Nygrån	4046
Skelleftehamn – Gåsören	6356
Sea area off Gåsören	6356
Sea area off Bjuröklubb	6356
NE of Nordvalen	4436
SW of Nordvalen	4436
Western Quark (W of Holmöarna)	5246
Umeå – Väktaren	5246
SE of Väktaren	4436
NE and SE of Sydostbrotten	4436
Fairway to Husum	5436
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	8446
Sea area off Skagsudde	5436
Fairway W of Ulvöarna	8446
Sea area E of Ulvöarna	4046
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	8444
Sea area off Härnö	2224
Sundsvall – Draghällan	8446
Draghällan – Åstholmsudde	2226
Off Åstholmsudde and Brämön	8446
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sea area off Agö	2226

Sandarne – Hällgrund	8346
Sea area off Hällgrund	2226
Ljusnefjärden – Storjungfrun	8346
Sea area off Storjungfrun	2226
Gävle – Eggegrund	8346
Sea area off Eggegrund	2226
Sea area off Orskär	5336
Öregrundsgrepen	8346
Passage at Grundkallen	2226
Passage at Understen	2226
Sea area off Svartklubben	2226
Hallstavik – Svartklubben	8346
Trälhavet – Furusund – Kapellskär	5146
Stockholm – Trälhavet – Klövholmen	2126
Klövholmen – Sandhamn	2126
Trollharan – Langgarn	2126
Köping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	8344
Stockholm – Södertälje	8344
Södertälje – Fifong	8244
Norrköping – Hargökalv	1006
Västervik – Marsholmen – Idö	5246
Uddevalla – Stenungsund	2121
Vänersborgsviken	4236
Fairway through Lurö archipelago	2226
Fairway to Gruvön	8346
Fairway to Karlstad	8346
Fairway to Kristinehamn	8346
Fairway to Otterbäcken	8346
Fairway to Lidköping	8346