

Eisbericht Nr. 70

Amtsblatt des BSH

Jahrgang 97

Nr. 70

Friday, 23.02.2024

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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 Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb treibt im Osten erst Trümmereis und dann etwas lockeres Eis. Im Westen treibt auf etwa 20 Sm Breite Eis verschiedener Bedeckungsgrade. Der zentrale Bereich ist eisfrei. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Im Norden treibt nördlich von Gogland meist sehr dichtes, 10–25 cm dickes Eis und im Osten kommt bis 10–35 cm dickes, sehr dichtes Eis vor. 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 Oskarshamn 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 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. Further out in the east there is some brash ice and later open ice. Outside the western coast there is an about 20nm wide area with ice of varying concentrations. The central part is ice free. Level ice or fast ice covers large parts of the Archipelago 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 there is mostly very close, 5–25 cm thick drift ice north of Gogland; in the east up to 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 Oskarshamn.

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-3 and Raahe lighthouse. At sea north of about 64°20'N there is mostly 30–60 cm thick, ridged and

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rafted drift ice that is difficult to force at places. In the southern part, there is mostly 10–35 cm thick very close ice. Smaller leads with level ice or very open ice are present in places along the Swedish coast and in the southeastern part.

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 mostly close, 10–35 cm thick close ice.

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. Off the fast ice in the east there is brash ice of varying concentration and further out a 5-10nm wide zone with open ice. Outside the fast ice in the west ice of varying concen-

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

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.

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 35–45 cm thick fast ice as well as in the Bjerkesund. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 40–50 cm thick fast ice. In Koporye Bay there is fast ice along the coast and in Narva Bay there is close ice near the shore. Off the northern fast ice first thin level ice followed

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

Central Baltic

Thin level ice is present at places along the Swedish coast.

Southeastern Baltic

In the Curonian Lagoon, there are some ice rem-

nants in places. With temperatures varying around 0 °C over the weekend, no larger ice formation or melt is expected. The mostly southerly winds will push the ice northwards.

In the night from Saturday to Sunday light frost could lead to some ice formation, but with temperatures above 0°C at other times no larger changes are expected in the total amount of ice. The ice will drift into mostly northerly directions.

trations is drifting until 20-30nm distance from shore. At sea the central region is ice free.

With temperatures mostly above 0 °C some ice melt may occur and with varying winds, but all with a southerly component, the ice will drift into northerly directions.

level ice in bays along the coast.

With temperatures above 0 °C no larger changes, except some minor melt, are expected and the ice will drift first in northerly, later variable directions.

With temperatures above 0 °C no larger changes are expected.

by 10-35cm thick very close ice to about the latitude of Gogland. At sea, east of about 27°45'E, there is 10-35cm thick, very close ice in the north and in the south there is open to close ice with some areas of open water.

With temperatures mostly above 0 °C some ice melt may occur and with varying winds, but all with a southerly component, the ice will drift into northerly directions.

to about the line Sorgu – Kabli. A band of ice stretches across Irben Strait, from very open ice in the south to close ice in the north.

With temperatures above 0 °C some ice melt is possible. The light winds are variable, but in general with southerly component, so the ice will drift in northerly directions. Overall no larger changes.

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

nants in places.

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 Skager-

rak there is very open ice in few sheltered areas. With temperatures 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, close drift ice. In the Värmlandssjön there is very open ice in the southern, western and north-

ern coast as some close drift ice in the northwest. With temperatures above 0°C some ice melt is possible but else no larger changes.

Dr. J. Holfort

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.
	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super (2000 t)/ IA (2000 t)	27.02.
	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 Örnköldsvik	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 Västerås	2000 dwt	IB	04.01.
	Balsta	2000 dwt	IB	14.01.
	Oxelösund, Norrköping and Västervik	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 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

<p>First number:</p> <p>A_B Amount and arrangements of sea ice</p> <p>0 Ice free</p> <p>1 Open water – concentration less than 1/10</p> <p>2 Very open ice - concentration 1/10 to 3/10</p> <p>3 Open ice – concentration 4/10 to 6/10</p> <p>4 Close ice – concentration 7/10 to 8/10</p> <p>5 Very close ice – concentration 9/10 to 9+/10</p> <p>6 Compact ice, including consolidated ice – concentration 10/10</p> <p>7 Fast ice with drift ice outside</p> <p>8 Fast ice</p> <p>9 Lead in very close or compact drift ice or along the fast ice edge</p> <p>/ Unable to report</p> <p>Third number:</p> <p>T_B Topography or form of ice</p> <p>0 Pancake ice, ice cakes, brash ice – less than 20 m across</p> <p>1 Small ice floes – 20 to 100 m across</p> <p>2 Medium ice floes – 100 to 500 m</p> <p>3 Big ice floes – 500 to 2000 m across</p> <p>4 Vast or giant ice floes – more than 2000 m across – or level ice</p> <p>5 Rafted ice</p> <p>6 Compact slush or shuga, or compacted brash ice</p> <p>7 Hummocked or ridged ice</p> <p>8 Thaw holes or many puddles on the ice</p> <p>9 Rotten ice</p> <p>/ No information or unable to report</p>	<p>Second number:</p> <p>S_B Stage of ice development</p> <p>0 New ice or dark nilas (less than 5 cm thick)</p> <p>1 Light nilas (5 - 10 cm thick) or ice rind</p> <p>2 Grey ice (10 - 15 cm thick)</p> <p>3 Grey-white ice (15 - 30 cm thick)</p> <p>4 White ice, first stage (30 - 50 cm thick)</p> <p>5 White ice, second stage (50 - 70 cm thick)</p> <p>6 Medium first year ice (70 - 120 cm thick)</p> <p>7 Ice predominantly thinner than 15 cm with some thicker ice</p> <p>8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice</p> <p>9 Ice predominantly thicker than 30 cm with some thinner ice</p> <p>/ No information or unable to report</p> <p>Fourth number:</p> <p>K_B Navigation conditions in ice</p> <p>0 Navigation unobscured</p> <p>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</p> <p>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</p> <p>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</p> <p>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</p> <p>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</p> <p>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</p> <p>7 Icebreaker assistance can only be given to vessels after special permission</p> <p>8 Navigation temporarily closed</p> <p>9 Navigation has ceased</p> <p>/ Unknown</p>
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Estonia, 23.02.2024

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	422/
Moonsund	7353

Finland, 22.02.2024

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	2226
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	5356
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5356
Vaasa lighthouse – Norrskär	5356
Sea area SW of Norrskär	5356
Kaskinen – Sälgrund	8446
Sea area off Sälgrund	7366
High sea from N to latitude Yttergrund	5356
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	2125
Sea area W of Märket	1105

Sea area S of Märket	1005	St. Petersburg – E-point island Kotlin	89//
Maarianhamina – Marhällan	2725	E-point Kotlin – long. lighth. Tolbuhkin	89//
The middle Åland Sea	0//5	Lighth. Tolbuhkin – lighth. –Šepelevskij	42//
Naantali and Turku – Rajakari	8846	Lighthouse Šepelevskij – island Sescar	53//
Rajakari – Lövskär	8846	Island Sescar – Island Sommers	53//
Lövskär – Korra	7766	Island Sommers– S-point island Gogland	32//
Korra – Isokari	5766	S-point isl. Gogland – long. p. Kunda	10//
Lövskär – Berghamn	8346	Vyborg, port and bay	89//
Berghamn – Stora Sottunga	5146	Island Vichrevoj – Island Sommers	53//
Stora Sottunga – Ledskär	8746	Strait Bjerkesund	89//
Sea area at Rödhamn	1106	E-point Bol'šoj Ber'ozovyj – Šepelevskij	84//
Lövskär – Grisselborg	8346	Luga bay	42//
Grisselborg – Norparskär	5146	Appr. Luga bay – line Moš.-Šepel.	32//
Sea area at Vidskär	1106		
Utö – Suomen Leijona	1106	Sweden, 23.02.2024	
Hanko harbours – Hanko 1	1105	Karlsborg – Malören	8546
Sea area S of Hanko 1	1105	Sea area off Malören	5576
Hanko – Vitgrund	8342	Luleå – Björnklack	8546
Vitgrund – Utö	5145	Björnklack – Farstugrunden	5576
Koverhar – Hästö Busö	8346	E and SE of Farstugrunden	5576
Hästö Busö – Ajax	1106	Sandgrönn fairway	8546
Sea area S of Ajax	1106	Rödkallen – Norströmsgrund	5246
Inkoo a. Kantvik – sea area Porkkala	7756	Haraholmen – Nygrån	8546
Sea area at Porkkala	1106	Sea area off Nygrån	5246
Sea area S of Porkkala lighthouse	1106	Skelleftehamn – Gåsören	6356
Helsinki harbours – Harmaja	7746	Sea area off Gåsören	6356
Harmaja – Helsinki lighthouse	5756	Sea area off Bjuröklubb	6356
Helsinki lighth. – sea S of Porkkala lh.	1106	NE of Nordvalen	4436
Fairway Helsinki – Porkkala – Rönnskär	5756	SW of Nordvalen	4436
Vuosaari harbour – Eestiluoto	7756	Western Quark (W of Holmöarna)	5246
Eestiluoto – Helsinki lighthouse	5756	Umeå – Väktaren	5246
Porvoo harbours – Varlax	5146	SE of Väktaren	4436
Varlax – Porvoo lighthouse	5756	NE and SE of Sydostbrotten	4436
Porvoo lighthouse – Kalbådagrund	5756	Fairway to Husum	5436
Sea Kalbådagrund – Helsinki lighthouse	1106	Örnsköldsvik – Hörnskatan	8446
Valko Harbour – Täktarn	7746	Hörnskatan – Skagsudde	8446
Archipelago fairway Boistö – Glosholm	5756	Sea area off Skagsudde	5436
Archipelago fairway Glosholm–Helsinki	8846	Fairway W of Ulvöarna	8446
Kotka – Viikari	8346	Sea area E of Ulvöarna	4436
Viikari – Orregrund	5746	Ångermanälven north Sandö Bridge	8444
Orregrund – Tiiskeri	5756	Ångermanälven south Sandö Bridge	8444
Tiiskeri – Kalbådagrund	5756	Härnösand – Härnön	8444
Hamina – Suurmusta	8446	Sea area off Härnö	3224
Suurmusta – Merikari	7746	Sundsvall – Draghällan	8446
Merikari – Kaunissaari	5746	Draghällan – Åstholmsudde	3226
		Off Åstholmsudde and Brämön	8446
Latvia, 23.02.2024		Hudiksvallfjärden	8346
Irben Strait, fairway	2001	Iggesund – Agö	8346
		Sea area off Agö	3226
Norway, 23.02.2024		Sandarne – Hällgrund	8346
Svinesund – Halden	33//	Sea area off Hällgrund	2126
Mossesund	3725	Ljusnefjärden – Storjungfrun	8346
Drammensfjord	3313	Sea area off Storjungfrun	2126
Tønsberg, inner harbour	82/3	Gävle – Eggegrund	8346
Vestfjord (Tønsberg)	6963	Sea area off Eggegrund	2126
Larviksfjorden (Stavern – Larvik)	121/	Sea area off Orskär	2126
Langårsund (Kragerø)	1001	Öregrundsgrepen	8346
		Hallstavik – Svartklubben	8346
Russian Federation, 22.02.2024		Trälhavet – Furusund – Kapellskär	1006
Port of St. Petersburg	89//	Stockholm – Trälhavet – Klövholmen	1006

Klövholmen – Sandhamn	1006
Trollharan – Langgarn	1006
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	4356
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

Latvia, 23.02.2024

Irben Strait, fairway	2001
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Norway, 23.02.2024

Svinesund – Halden	33//
Mossesund	3725
Drammensfjord	3313
Tønsberg, inner harbour	82/3
Vestfjord (Tønsberg)	6963
Larviksfjorden (Stavern – Larvik)	121/
Langårsund (Kragerø)	1001