

Eisbericht Nr. 77

Amtsblatt des BSH

Jahrgang 96

Nr. 77

Thursday, 16.03.2023

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Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 60 cm dickes Festeis und im Süden bis 40 cm dickes Festeis. Außerhalb des Festeises befindet sich im Westen eine Meereisrinne mit offenem Wasser von Malören bis nach Kvarken. Ansonsten treibt auf See zumeist sehr dichtes, aufgeschobenes und aufgedichtetes Eis, welches im Norden bis 45 cm dick und im Süden bis 30 cm dick ist. In Kvarken liegt bis 35 cm dickes Festeis in den Schären und Buchten und auf See kommt 5–15 cm dickes Eis verschiedener Konzentration vor. In der Bottensee und dem Schärenmeer kommt entlang der Küsten 5–40 cm dickes, ebenes Eis oder Festeis vor. Im Mälarsee liegt 5–15 cm dickes Eis oder Neueis. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 40 cm dickes Festeis. Auf See treibt im Osten zumeist sehr dichtes, 5–25 cm dickes Eis. In den Schären und Buchten entlang der nördlichen Küste kommt Festeis vor sowie Neueis weiter außerhalb 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 60 cm thick fast ice in the north and up to 40 cm thick fast ice in the south. Off the fast ice in the west, there is a lead with open water from Malören to the Quark. Else at sea, there is ridged and rafted, mostly very close ice that is up to 45 cm thick in the north and up to 30 cm thick in the south. In the Quark, there is up to 35 cm thick fast ice in the archipelagos and bays and at sea, there is 5–15 cm thick, ice of varying concentration. In the Sea of Bothnia and the Archipelago Sea, 5–40 cm thick fast ice or level ice is present along the coasts. In Lake Mälaren, there is 5–15 cm thick ice and new ice. In the Gulf of Finland, up to 40 cm thick fast ice is present in the easternmost bays. At sea, there is mostly very close, 5–25 cm thick ice in the eastern part. In the archipelagos and bays along the northern coast, there is fast ice and new ice further out. 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 30–60 cm thick fast ice and compact ice, out to Malören, Kemi-3 and Kattilankalla. From Malören to Holmöarna, there is a lead with open water. East of about the line Malören – Norströmsgrund – Simpgrund – Holmöarna, there is very close, 20–45 cm thick and ridged ice north of

about 64°30'N and 10–30 cm thick, very close, ridged and rafted ice elsewhere to the Quark. Cracks and leads occur at places in the ice field. In the southern Bay of Bothnia, there is 15–40 cm thick fast ice in the archipelagos. With moderate to severe frost, ice growth continues the coming day and new ice will form in leads.

Herstellung und Vertrieb

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The ice will drift slightly to the north.

The Quark

There is 15–40 cm thick fast ice in the Vaasa archipelago out to Ensten. Further out, there is very close, 5–25 cm thick ice to Norra Glöppsten. On the Swedish side, there is mostly up to 35 cm thick fast ice in inner bays and open water further out. At

Sea of Bothnia

In the archipelagos along the eastern coast, there is 15–30 cm thick fast ice. Further out in the north, there is very close ice with a brash ice barrier. Further out in the south, there is thin level ice. 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. Slightly

Archipelago Sea and Åland Sea

At the eastern coast, there is 5–15 cm fast or level ice in the inner bays and new ice further out in the archipelago. In the western and central part, thin level ice is present in inner bays and new ice fur-

Northern Baltic

In Lake Mälaren, there is 5–15 cm thick fast in the western part. Else, there is thin level ice or new ice. New ice occurs in sheltered places along the

Gulf of Finland

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is 30–50 cm thick fast ice and 20–35 cm thick compact ice in the fairway. In the Bay of Vyborg, there is 20–40 cm thick fast ice and in the Bjerkesund, there is 15–25 cm thick fast ice. East of about 27°25'E, there is mostly very close, 5–25 cm thick drift ice. The ice field is ridged at places and cracks occur also. Areas of very open drift ice are present in the south. Further west is

Gulf of Riga

In Väinameri, there is 10–20 cm thick fast ice and very close drift ice near the coasts. On the fairway is open water. In the Bay of Pärnu, there is mostly very close drift ice up to about the line Liu – Reiu and a narrow band of very close ice along the

Skagerrak and Kattegat

New ice and up to 30 cm thick fast is present in some inner Norwegian Fjords. At some places also thicker ice occurs. Close new ice is present near

Swedish Lakes

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

sea, there is 5–15 cm thick ice of varying concentration from south of Norrskär northward.

Some ice growth and ice formation is expected the coming day. The ice will slowly drift in northerly directions.

off the western coast, there is new ice at places. On Ångermanälven, there is 20–40 cm thick fast or level ice.

Some ice formation and ice growth is possible along the coasts in the north and during night also in the south. The ice will slightly drift to the east/northeast.

ther out.

Some ice may form during night but else no larger changes are expected the coming day.

outer coast.

No larger changes are expected the coming day.

open water. Along the northern coast, there is 15–35 cm thick fast ice in the eastern archipelagos. Further out, there is level ice. In the western archipelagos, there is 5–20 cm thick fast ice and new ice further out.

Some ice formation is possible in the eastern part the coming day. The ice will drift slowly to the east and later north.

eastern coast. Open water is present further out. With some night frost in coastal areas no larger changes and no significant ice drift are expected the coming day.

Oslo and in the Drammensfjord.

No larger changes are expected the coming day.

No larger changes are expected the coming day.

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	4000 dwt	IA	08.03.
	Kalajoki, Kokkola and Pietarsaari	2000 dwt	IA	08.03.
	Vaasa	2000 dwt	IB	08.03.
	Kristiinankaupunki, Pori, Rauma and Uusikaupunki	2000 dwt	II	12.03.
	Kaskinen, Inkoo, Kantvik, Helsinki, Sköldvik and Mussalo	2000 dwt	II	07.01.
	Loviisa, Kotka and Hamina	2000 dwt	I	08.03.
Russia	Vyborg and Vysotsk	-	Ice 1	08.02.
Sweden	Karlsborg	4000 dwt (2000 t)	IA	28.02.
	Lulea	4000 dwt	IA	28.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	04.03.
	Holmsund	2000 dwt	IC	07.02.
	Rundvik and Husum	2000 dwt	IC	04.03.
	Örnsköldsvik	2000 dwt	IC	13.02.
	Angermanälven	2000 dwt	IB	07.01.
	Söraker, Sundsvall and Söderhamn	2000 dwt	IC	13.02.
	Köping and Västerås	2000 dwt	IC	06.03.
	Balsta	1300/2000 dwt	IC/II	22.12.
	Härnösand, Stocka, Hudiksvall, Iggesund, Orrskär and Norrsundet	2000 dwt	II	06.03.

Estonia**Icebreakers:**

EVA-316 assists in the port of Pärnu. BOTNICA assists to the port of Sillamäe.

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:

POLARIS, KONTIO, OTSO, SISU, ODEN, 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. URHO assists in the eastern Gulf of Finland.

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

<p>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</p> <p>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 floes – 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</p>	<p>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</p> <p>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 special permission 8 Navigation temporarily closed 9 Navigation has ceased / Unknown</p>
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Estonia, 16.03.2023

Shipping route from Narva-Jõssuu	41/2
Kunda, port and bay	11/1
Paernu, port and bay	51/5
Moonsund	1//0

Finland, 16.03.2023

Röyttä – Etukari	8546
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	7456
Kattilankalla – Oulu 1	6456
Sea area SW of Oulu 1	5876
High Sea N of the latitude of Marjaniemi	5876
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	7356

Raahe lighthouse – Nahkiainen	5356
Latitude Marjaniemi – Ulkokalla, Sea	5876
Rahja harbour – Välimatala	7356
Vaelimatala to line Ulkokalla – Ykskivi	5356
Sea betw. lat. of Ulkokalla – Pietarsaari	5356
Ykspihlaja – Repskär	7356
Repskär – Kokkola lighthouse	5356
Sea area off Kokkola lighthouse	5356
Pietarsaari – Kallan	8346
Sea area off Kallan	5356
Sea lat. Pietarsaari – NE Nordvalen	5756
Sea area ENE of Nordvalen	4756
Sea area Nordvalen to W of Norrskär	4146
Vaskiluoto – Ensten	7756
Ensten – Vaasa lighthouse	5756
Vaasa lighthouse – Norrskär	4146
Sea area SW of Norrskär	2006
Kaskinen – Sälgrund	5145
Sea area off Sälgrund	2005
Pori harb. to line Pori lighth. – Säppi	8745

Rauma, Harbour – Kylmäpihlaja	3005	Rödkallen – Norströmsgrund	5256
Kylmäpihlaja – Rauma lighthouse	1005	Haraholmen – Nygrån	8346
Uusikaupunki harbour – KIRSTA	8145	Sea area off Nygrån	1006
KIRSTA – Isokari	1005	Skelleftehamn – Gåsören	5336
Naantali and Turku – Rajakari	3112	Sea area off Gåsören	5336
Rajakari – Lövskär	1000	Sea area off Bjuröklubb	5336
Lövskär – Korra	1000	NE of Nordvalen	1356
Lövskär – Berghamn	1000	SW of Nordvalen	1356
Lövskär – Grisselborg	1000	Western Quark (W of Holmöarna)	8246
Hanko – Vitgrund	1000	Umeå – Väktaren	5146
Koverhar – Hästö Busö	2001	SE of Väktaren	1106
Inkoo a. Kantvik – sea area Porkkala	8145	NE and SE of Sydostbrotten	2126
Helsinki harbours – Harmaja	3015	Fairway to Husum	1106
Harmaja – Helsinki lighthouse	0//5	Örnsköldsvik – Hörnskatan	8446
Fairway Helsinki – Porkkala – Rönnskär	0//5	Hörnskatan – Skagsudde	5146
Vuosaari harbour – Eestiluoto	3025	Sea area off Skagsudde	1106
Eestiluoto – Helsinki lighthouse	0//5	Fairway W of Ulvöarna	1106
Porvoo harbours – Varlax	5755	Sea area E of Ulvöarna	1106
Varlax – Porvoo lighthouse	0//5	Ångermanälven north Sandö Bridge	8444
Porvoo lighthouse – Kalbådagrund	0//5	Ångermanälven south Sandö Bridge	4044
Valko Harbour – Täktarn	5146	Härnösand – Härnön	8444
Archipelago fairway Boistö – Glosholm	5146	Sundsvall – Draghällan	5146
Archipelago fairway Glosholm–Helsinki	5145	Draghällan – Åstholmsudde	4046
Kotka – Viikari	8345	Hudiksvallfjärden	8346
Viikari – Orregrund	5755	Iggesund – Agö	8346
Orregrund – Tiiskeri	5756	Sandarne – Hällgrund	8346
Hamina – Suurmusta	5146	Ljusnefjärden – Storsjungfrun	8346
Suurmusta – Merikari	5756	Sea area off Storsjungfrun	1006
Merikari – Kaunissaari	5756	Gävle – Eggegrund	5146
		Öregrundsgrepen	5142
Norway, 16.03.2023		Hallstavik – Svartklubben	5142
Svinesund – Halden	31//	Trälhavet – Furusund – Kapellskär	4041
Drammensfjord	5011	Stockholm – Trälhavet – Klövholmen	2020
Husøysund – Tønsberg channel	8345	Köping – Kvikksund	8244
Tønsberg, inner harbour	8353	Västerås – Grönsö	8244
Vestfjord (Tønsberg)	8555	Grönsö – Södertälje	5144
Langårsund (Kragerø)	8144	Stockholm – Södertälje	5144
		Södertälje – Fifong	4044
Russian Federation, 16.03.2023		Fairway to Karlstad	4041
Port of St. Petersburg	84/3	Fairway to Kristinehamn	5142
St. Petersburg – E-point island Kotlin	53/3	Fairway to Otterbäcken	4041
E-point Kotlin – long. lighth. Tolbuhkin	5303		
Lighth. Tolbuhkin – lighth. – Šepelevskij	50/3		
Lighthouse Šepelevskij – island Sescar	53/2		
Island Sescar – Island Sommers	53/2		
Island Sommers– S-point island Gogland	12/1		
Vyborg, port and bay	83/3		
Island Vichrevoj – Island Sommers	53/3		
Strait Bjerkesund	83/3		
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53/2		
Luga bay	43/3		
Appr. Luga bay – line Moš.-Šepel.	23/2		
Sweden, 16.03.2023			
Karlsborg – Malören	6456		
Sea area off Malören	5476		
Luleå – Björnklack	8546		
Björnklack – Farstugrunden	5256		
E and SE of Farstugrunden	5256		
Sandgrönn fairway	8546		