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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 94

Amtsblatt des BSH

Jahrgang 97	Nr. 94	Tuesday, 02.04.2024	1

Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 80 cm dickes, in den südlichen bis 70 cm dickes Festeis. Im Osten verläuft außerhalb des Festeises eine Rinne. Auf See treibt im Nordenwesten zumeist 40–70 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes Eis, das teilweise schwer zu passieren ist. Weiter südlich treibt auf See im Westen bis 40 cm dickes, sehr dichtes oder dichtes Eis, um im Osten kommt offenes Wasser vor. An den Küsten von Norra Kvarken liegt bis 60 cm dickes Festeis; auf See treibt im Westen 10–30 cm dickes, sehr lockeres bis dichtes Eis und ansonsten kommt offenes Wasser vor. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 40 cm dickes Festeis vor und im Nordwesten treibt vor der Küste 20-40cm dickes, sehr dichtes Eis. Im Schärenmeer kommt morsches Festeis und offenes Wasser vor. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis; auf See treibt ganz im Nordosten 10–35 cm dickes Eis. Im Väinameri, Mälaren und Vänern kommt örtlich morsches Festeis und offenes Wasser vor.

Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 80 cm thick in the north and up to 70 cm thick in the south. Outside the fast ice in the east there is a lead. At sea in the northwest, there is mostly 40–70 cm thick, very close, ridged and rafted ice that is difficult to force at places. Further south there up to 40 cm thick very close and close ice in the west and open water in the east. In the Quark there is up to 60 cm thick fast ice at the coasts and at sea there is 10–30 cm thick, very open to close ice in the west and else open water. At the coasts of the Sea of Bothnia there is fast ice, up to 55 cm thick in the east and up to 40 cm thick in the west and 20-40cm thick, very close ice is present outside the northwestern coast. Rotten fast ice and open water is present in the Archipelago Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. At sea in the extreme northeast there is 10–35 cm thick ice. In Väinameri, Malären and Vänern there is rotten fast ice at places and open water.

Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 50–80 cm thick in the north and 40–70 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe lighthouse and is followed by an open water lead with some thicker floes. The lead widens to the south and continues all the way to the Quark. In the northwest, west of about 23°20’E, there is 40–70 cm thick, ridged and rafted, very close ice; the field is difficult to force at places; north of 65°N there are some areas with new ice and south of about 64°20’N there is 15-435cm thick close ice. Outside the Swedish coast there is 15–45 cm thick very close down to about Bjuröklubb and further south 10-25cm thick very close ice all the way to Holmöarna, with smaller area of very open ice,

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directly at the coast.
With light to moderate frost new ice formation is expected and the ice will drift to the southwest.

The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten. Along the Swedish coast there is up to 40 cm thick fast ice. Off this ice, there is 10–40 cm thick ice, ranging from very open to close and stretching out to east of Sydostbrotten. Else at sea mostly open water.
With light to moderate frost some new ice formation is expected and the ice will drift to the southwest.

Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–40 cm thick in the west. The fast ice in the far south is partly rotten. On Ångermanälven, there is 15–40 cm thick fast ice. Off the coast north of Härnösand, there is 20–40 cm thick, very close ice. Off the coast in the east there is open water.
With light frost and northeasterly winds, some new ice formation may occur in the north..

Archipelago Sea and Åland Sea

In the Archipelago Sea there is rotten fast ice in the archipelago and around the Åland Islands with open water in between. In the Åland Sea there is rotten fast ice in bays along the coast.
No mayor change is expected.

Northern Baltic

In Lake Mälaren there is rotten fast ice in bays and near the coast and open water elsewhere. Along the outer Swedish coast there is open water and locally some broken ice.
No mayor change is expected.

Gulf of Finland

Along the northern coast there is fast ice in the archipelago, rotten in the west and up to 55 cm thick in the east. In the Vyborg Bay there is 20–30 cm thick fast ice and in the Bjerkesund there very open ice; very close ice is present in both entrances. Off the northern fast ice, there is open water, except east of about Kotka and north of about 60°20'N where there is 10–35 cm thick, partly ridged, close to very close ice. From St. Petersburg to Kotlin there is very open ice, with areas of very close ice north and south of Kotlin. Open water further out. In Lake Saimaa is 30–55 cm thick ice with open areas.
Northeasterly winds lead to falling temperatures, but until tomorrow some ice melt is still expected and the ice drifts southwestwards..

Gulf of Riga

In Väinameri there is rotten fast ice in places near the coasts and on the fairways there open water. The Bay of Pärnu is ice free.

Temperatures will fall to around 0°C tomorrow, but overall ice melt is expected until then.

Swedish Lakes

In Lake Vänern, rotten fast ice is present in places in the northern archipelagos.

No mayor change is expected.

Dr. J.Holfort

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Finland	**Tornio, Kemi and Oulu**	**4000 dwt**	**IA**	**02.04.**
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Vaasa	**2000 dwt**	**IB**	**02.04.**
	Pori, Rauma	**-**	**cancelled**	**02.04.**
	Kaskinen and Kristiinankaupunki	**-**	**cancelled**	**02.04.**
	Uusikaupunki	**-**	**cancelled**	**02.04.**
	Langnäs	**-**	**cancelled**	**02.04.**
	Naantali and Turku	**-**	**cancelled**	**02.04.**
	Sköldvik	**-**	**cancelled**	**02.04.**
	Koverhar, Lappohja, Inkoo, Kantvik and Helsinki	**-**	**cancelled**	**02.04.**
	Taalintehdas and Förby	**-**	**cancelled**	**02.04.**
	Mussalo, Loviisa and Kotka	**2000 dwt**	**II**	**02.04.**
	Hamina	2000 dwt	I	25.03.
	Lake Saimaa	2000 dwt	IA	08.01.
	Saimaa Canal	2000 dwt	IA	08.01.
Russia	Vyborg	-	Ice 1	28.03.
	Vysotsk	-	Ice 1	28.03.
	Primorsk	-	Ice 1	25.03.
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	IB	27.03.
	Stocka, Hudiksvall, Iggesund, Söderhamn	2000 dwt	IC	26.02.
	Orrskär, Norrsundet, Gävle and Skutskär	2000 dwt	II	18.03.
	Härnösand	2000 dwt	IB	26.02.
	Söråker and Sundsvall	2000 dwt	IC	22.03.
	Hargshamn, Öregrund, Hallstavik and Grisslehamn	2000 dwt	II	26.03.
	Köping, Västeras and Balsta	2000 dwt	II	26.03.

Finland/Sweden

The transit traffic west of Holmöarna is temporarily prohibited.
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, ATLE, POLARIS and URHO assist in the Bay of Bothnia. OTSO assists in the southern Bay of Bothnia. ZEUS and ALE assist in the Quark. CALYPSO assists the Gulf of Finland.

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 and Primorsk.

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, 02.04.2024

Moonsund	1//1

Finland, 02.04.2024

Röyttä – Etukari	8546
Etukari – Ristinmatala	8546
Ajos – Ristinmatala	8546
Ristinmatala – Kemi 2	7476
Kemi 2 – Kemi 1	5676
Sea area SW of Kemi 1	5676
Kemi 2 – Ulkokrunni – Virpiniemi	7476
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	7476
Sea area SW of Oulu 1	5676
High Sea N of the latitude of Marjaniemi	5676
Raahe harbour – Heikinkari	8546
Heikinkari – Raahe lighthouse	6476
Raahe lighthouse – Nahkiainen	5476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8446
Vaelimatala to line Ulkokalla – Ykskivi	2456
Sea betw. lat. of Ulkokalla –Pietarsaari	5476
Ykspihlaja – Repskär	7476
Repskär – Kokkola lighthouse	5476
Sea area off Kokkola lighthouse	1306
Pietarsaari – Kallan	8446
Sea area off Kallan	1306
Sea lat. Pietarsaari – NE Nordvalen	2716
Sea area ENE of Nordvalen	4346
Sea area Nordvalen to W of Norrskär	4346
Vaskiluoto – Ensten	7356
Ensten – Vaasa lighthouse	5356

Vaasa lighthouse – Norrskär	1306
Sea area SW of Norrskär	2716
Kaskinen – Sälgrund	1302
Sea area off Sälgrund	1302
High sea from N to latitude Yttergrund	5352
Pori harb. to line Pori lighth. – Säppi	1302
Sea W of line Pori lighthouse – Säppi	1302
Rauma, Harbour – Kylmäpihlaja	1302
Kylmäpihlaja – Rauma lighthouse	1302
Uusikaupunki harbour – Kirsta	8842
Kirsta – Isokari	1302
Isokari – Sandbäck	1302
Sea area N of Sälskär	1302
Naantali and Turku – Rajakari	7342
Rajakari – Lövskär	5342
Lövskär – Korra	8392
Korra – Isokari	1302
Lövskär – Berghamn	1302
Berghamn – Stora Sottunga	1302
Stora Sottunga – Ledskär	1302
Lövskär – Grisselborg	1302
Grisselborg – Norparskär	1302
Hanko – Vitgrund	1302
Vitgrund – Utö	1302
Koverhar – Hästö Busö	1302
Inkoo a. Kantvik – sea area Porkkala	8392
Helsinki harbours – Harmaja	8892
Harmaja – Helsinki lighthouse	1302
Fairway Helsinki – Porkkala – Rönnskär	1302
Vuosaari harbour – Eestiluoto	1302
Eestiluoto – Helsinki lighthouse	1302
Porvoo harbours – Varlax	1302
Varlax – Porvoo lighthouse	1302
Valko Harbour – Täktarn	8445
Archipelago fairway Boistö – Glosholm	1305
Archipelago fairway Glosholm–Helsinki	1302
Kotka – Viikari	1305
Viikari – Orrengrund	1305
Orrengrund – Tiiskeri	1305
Tiiskeri – Kalbådagrund	0//5
Hamina – Suurmusta	8446
Suurmusta – Merikari	8446
Merikari – Kaunissaari	3716

Russian Federation, 02.04.2024

Port of St. Petersburg	32//
St. Petersburg – E-point island Kotlin	32//
E-point Kotlin – long. lighth. Tolbuhkin	22//
Lighthouse Šepelevskij – island Sescar	32//
Vyborg, port and bay	89//
Island Vichrevoj – Island Sommers	53//
Strait Bjerkesund	22//
E-point Bol'šoj Ber'ozovyj – Šepelevskij	21//

Sweden, 02.04.2024

Karlsborg – Malören	8646
Sea area off Malören	5676
Luleå – Björnklack	8646
Björnklack – Farstugrunden	5576
E and SE of Farstugrunden	5576
Sandgrönn fairway	8646
Rödkallen – Norströmsgrund	5576
Haraholmen – Nygrån	8646
Sea area off Nygrån	5556
Skelleftehamn – Gåsören	8446
Sea area off Gåsören	5456
Sea area off Bjuröklubb	5456
NE of Nordvalen	4336
SW of Nordvalen	4336
Western Quark (W of Holmöarna)	2426
Umeå – Väktaren	2426
SE of Väktaren	2426
NE and SE of Sydostbrotten	2426
Fairway to Husum	5456
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	8446
Sea area off Skagsudde	5456
Fairway W of Ulvöarna	8446
Sea area E of Ulvöarna	5456
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	5454
Sea area off Härnö	5454
Sundsvall – Draghällan	1306
Draghällan – Åstholmsudde	5456
Off Åstholmsudde and Brämön	5456
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sandarne – Hällgrund	8346
Ljusnefjärden – Storjungfrun	8346
Gävle – Eggegrund	1306
Hallstavik – Svartklubben	8396
Trälhavet – Furusund – Kapellskär	1000
Stockholm – Trälhavet – Klövholmen	1000
Köping – Kvicksund	1104
Västerås – Grönsö	8394
Grönsö – Södertälje	1104
Stockholm – Södertälje	1104
Fairway to Gruvön	1201
Fairway to Karlstad	8392
Fairway to Kristinehamn	1201