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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 88

Amtsblatt des BSH

Jahrgang 95	Nr. 88	Thursday, 31.03.2022	1

Übersicht

In den Schären der Bottenwiek liegt im Norden 40–85 cm dickes Festeis und im Süden 30–55 cm dickes Festeis. Entlang des Festeises im Norden und Nordwesten kommt eine mit Neueis bedeckte Rinne vor. Auf See treibt nördlich der Line Blackkallan-Kallan 30–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis, südlich davon kommt meist offenes Wasser vor. In Norra Kvarken liegt in den Schären bis zu 50 cm dickes Festeis und auf See kommt offenes Wasser vor. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes, ebenes Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich von Moščnyj treibt auf See im Süden sehr dichtes bis dichtes, 15–30 cm dickes Eis und im Norden sehr lockeres Eis und Neueis. Im Rigaischen Meerbusen kommt an der Küste bis zu 25 cm dickes, örtlich morsches Eis im Moonsund und in der Pärnubucht vor. Dünnes, morsches Eis kommt örtlich in der nördlichen Ostsee und dem Vänern vor.

Overview

In the archipelagos of the Bay of Bothnia, there is 40–85 cm thick fast ice in the north and 30–55 cm thick fast ice in the south. Outside the fast ice in the north and northwest there is a new ice covered lead. At sea there is mostly 30–70 cm thick, very close, ridged and rafted ice north of the line Blackkallan – Kallan and mostly open water south of the line. In Norra Kvarken, there is up to 50 cm thick fast ice in the archipelagos and open water at sea. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice. In the Gulf of Finland, there is up to 45 cm thick fast ice along the northern and eastern coast. At sea east of Moščnyj, there is mostly very close to close, 15–30 cm thick ice in the south and very open ice and new ice in the north. In the Gulf of Riga, there is up to 25 cm thick ice, rotten in places, at the coasts of Moonsund and in Pärnu Bay. Thin, rotten ice occurs at places in the northern Baltic and Lake Vänern.

Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice is 40–70 cm thick. Off the fast ice there is 30–70 cm thick consolidated ice. Further out runs a wide lead covered with new ice from Skelleftea Bay to Oulu-1. At sea, there is an area with very close, ridged and 40–70 cm thick ice around 64°50’ N 23°20’ E. Else at sea, there is very close, 30–60 cm thick, ridged and rafted ice north of the line Blackkallan – Kallan. In the east there is some pressure and the ice is difficult to force in places. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast; on the eastern coast there is 30–55 cm thick fast ice. At sea, there is mostly open water.

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

With moderate frost, new ice formation is expected the coming day. With mostly light winds, no larger ice drift is expected.

Norra Kvarken

In the archipelagoes off Vaasa, there is 20–50 cm thick fast ice to Ensten. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there is open water in the northern part and along the coasts.
Some ice formation is possible in sheltered coastal areas and even at sea, as only light winds are expected.

Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly open water in the lower part. In the bays along the western coast, there is 10–40 cm thick fast ice. Further out, there is open water in the north. Along the eastern coast, there is 20–45 cm fast ice in the inner archipelagos, and belts of 10-30cm thick ice are drifting in places somewhat further out.
With mostly slight frost some ice formation is possible in sheltered areas but overall no larger changes are expected.

Archipelago and Åland Sea

Rotten fast ice and level ice, up to 30cm thick, are present in the inner archipelagos and bays of both coasts. At the eastern coast, there is mostly open water on the fairways and in the outer archipelagos.
Overall no larger changes are expected but some ice formation is possible in sheltered areas with slight frost.

Gulf of Finland

From St. Petersburg up to the easternmost tip of Kotlin, there is 30–40 cm thick very close ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 20–40 cm thick compact or fast ice and very close ice in the entrance to Vyborg Bay. At sea east of Moščnyj, there is mostly very close to close, 15–30 cm thick drift ice in the south and open water, very open ice and new ice in the north.

In the archipelagos of the northern coast, there is 10–35 cm thick rotting fast ice in the west and 30–55 cm thick fast ice in the east. Further out new ice and open water.
With night frost down to about -5°C and only light winds, some ice formation is possible. Ice drift will be mostly weak.

Gulf of Riga

In Moonsund, there is rotten fast ice at the eastern coast. Further out and on the fairways, there is open water. In Pärnu Bay, there is 10–25 cm thick and rotten fast ice near the northern and eastern coast, further out there is narrow belt of close ice.

In the western part there is very open ice.
With slight frost, no larger changes are expected with some new ice formation possible in sheltered areas.

Northern Baltic

In Lake Mälaren, there is rotten fast or level ice in sheltered bays and else mostly open water. Along the Swedish coast, there is partly broken and rotten thin level ice in the Stockholm archipelago.

No larger changes are expected the coming day, but some new ice formation is possible with temperatures slightly below 0 °C.

Swedish Lakes

In Lake Vänern, there is rotten ice in bays of the northern coast.

With night frost no larger changes are expected the coming day.

Dr. J.Holfort

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C	17.12.
Finland	Tornio, Kemi and Oulu	4000 dwt	IA	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola and Pietarsaari	2000 dwt	IA	01.02.
	Vaasa	**2000 dwt**	**I**	**31.03.**
	Kaskinen	**2000 dwt**	**II**	**31.03.**
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali and Turku	2000 dwt	II	01.01.
	Loviisa	2000 dwt	II	24.03.
	Kotka and Hamina	2000 dwt	II	29.03.
	Mussalo	2000 dwt	II	25.12.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 2	14.01.
	Primorsk	-	Ice 2	27.01.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg	4000 dwt (2000 t)	IA	30.03.
	Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IC	14.03.
	Örnsköldsvik	2000 dwt	II	30.03.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.

Information of the Icebreaker Services

Estonia
Icebreaker: EVA-316 assists to the port of Pärnu.

Finland/Sweden
The Saimaa Canal is closed for traffic from 30th of January.

The traffic separation schemes in the Quark are temporarily out of use from 15 January 2022.

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 78. 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:
OTSO, KONTIO, URHO, POLARIS, NORDICA, SISU, FREJ, ALE and YMER assist in the Bay of Bothnia. ZEUS assist in the Sea of Bothnia, VOIMA in the eastern Gulf of Finland.

Norway
Hellefjorden (Kragerø): Navigation temporarily closed. (28.02.22)

Russia
There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg, Ust-Luga and Primorsk.

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

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 , 31.03.2022

Pärnu, port and bay	7375
Moonsund	1//0

Finland , 30.03.2022

Roeyttae – Etukari	8646
Etukari – Ristinmatala	8546
Ajos – Ristinmatala	8546
Ristinmatala – Kemi 2	6476
Kemi 2 – Kemi 1	9026
Sea area SW of Kemi 1	9026
Kemi 2 – Ulkokrunni – Virpiniemi	8546
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6476
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8546
Heikinkari – Raahe lighthouse	7476
Raahe lighthouse – Nahkiainen	5476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	9026
Sea betw. lat. of Ulkokalla –Pietarsaari	5456
Ykspihlaja – Repskaer	8846
Repskaer – Kokkola lighthouse	6866
Sea area off Kokkola lighthouse	5846
Pietarsaari – Kallan	7856
Sea area off Kallan	5876
Sea lat. Pietarsaari – NE Nordvalen	0//6
Sea area ENE of Nordvalen	0//6
Sea area Nordvalen to W of Norrskaer	0//6
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	1716
Vaasa lighthouse – Norrskaer	1716
Kaskinen – Sälgrund	1716
Sea area off Sälgrund	2716
Pori harb. to line Pori lighth. – Säppi	1215
Rauma, Harbour – Kylmäpihlaja	2725
Uusikaupunki harbour – Kirsta	8745
Naantali and Turku – Rajakari	1205
Rajakari – Lövskär	1205
Lövskär – Korra	1205
Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Inkoo a. Kantvik – sea area Porkkala	7201
Vuosaari harbour – Eestiluoto	1000
Porvoo harbours – Varlax	1000
Varlax – Porvoo lighthouse	1000
Valko Harbour – Täktarn	7715
Archipelago fairway Boistö – Glosholm	1105
Archipelago fairway Glosholm–Helsinki	1105
Kotka – Viikari	1315
Viikari – Orrengrund	1715
Hamina – Suurmusta	7845
Suurmusta – Merikari	1715
Merikari – Kaunissaari	1715

Russian Federation , 31.03.2022

Port of St. Petersburg	54/3
St. Petersburg – E-point island Kotlin	54/3
E-point Kotlin – long. lighth. Tolbuhkin	53/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	53/2
Lighthouse Šepelevskij – island Sescar	53/2
Island Sescar – Island Sommers	1311
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	63/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	42/2
Luga bay	52/2
Appr. Luga bay – line Moš.-Šepel.	42/2

Sweden , 30.03.2022

Karlsborg – Maloeren	6476
Sea area off Maloeren	5576
Luleå – Bjoernklack	6476
Bjoernklack – Farstugrunden	6476
E and SE of Farstugrunden	5576
Sandgroenn fairway	6476
Roedkallen – Norstroemsgrund	4046
Haraholmen – Nygrån	6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsoeren	4046
Sea area off Gåsoeren	5376
Sea area off Bjuroeklubb	5456
NE of Nordvalen	1306
SW of Nordvalen	1306
Western Quark (W of Holmoearna)	1306
Umeå – Vaektaren	1306
SE of Vaektaren	1306
Oernskoeldsvik – Hoernskaten	8446
Hoernskaten – Skagsudde	8446
Fairway W of Ulvoearna	1306
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	1304
Haernoesand – Haernoen	1306
Sundsvall – Draghaellan	1101
Hudiksvallfjaerden	8442
Hallstavik – Svartklubben	8392
Koeping – Kvicksund	1201
Västerås – Grönsö	1201
Grönsö – Södertälje	1201
Stockholm – Södertälje	1201
Fairway to Karlstad	8392
Fairway to Kristinehamn	8392