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BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

Eisbericht Nr. 56

Amtsblatt des BSH

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Übersicht

In den Schären der Bottenwiek liegt im Norden 40–70 cm dickes Festeis und im Süden 20–55 cm dickes Festeis. Außerhalb des Festeises treibt im Norden 20–50 cm dickes, sehr dichtes und aufgepresstes Eis. Ansonsten befindet sich auf See sehr dichtes, 10–40 cm dickes und aufgepresstes Eis. Im Westen kommt allerdings dünnes, ebenes Eis vor. In Norra Kvarken kommt in den Schären bis zu 55 cm dickes Festeis vor. Auf See treibt im Norden dichtes, 5–25 cm dickes Eis sowie sehr lockeres Eis und offenes Wasser weiter südlich. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes, ebenes Eis und Neueis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 40 cm dickes Festeis. Östlich der Linie Haapasaari – Seskar treibt auf See meist sehr dichtes, 10–30 cm dickes Eis sowie sehr lockeres Eis und offenes Wasser weiter westlich. Im Rigaischen Meerbusen befindet sich bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht. Dünnes, teilweise ebenes Eis kommt örtlich in der nördlichen Ostsee, dem Vänern und der südöstlichen Ostsee vor. Dünnes Eis kommt in geschützten Buchten der zentralen Ostsee vor. In einigen inneren Fjorden des Skagerraks liegt dünnes Eis oder Festeis.

Overview

In the archipelagos of the Bay of Bothnia, there is 40–70 cm thick fast ice in the north and 20–55 cm thick fast ice in the south. Off the fast ice, there is 20–50 cm thick, partly ridged and very close ice in the north. Else at sea, there is mostly ridged, 10–40 cm thick and very close ice, but in the western part, there is thin level ice. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos. At sea, there is close ice in the north and very open ice and open water further south. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice and new ice. In the Gulf of Finland, there is up to 40 cm thick fast ice along the northern and eastern coast. At sea east of the line Haapasaari – Seskar, there is mostly very close, 10–30 cm thick ice and very open ice and open water further west. In the Gulf of Riga, there is up to 25 cm thick ice in Moonsund and Pärnu Bay. Thin ice and thin level ice occurs at places in the northern Baltic, Lake Vänern and the southeastern Baltic. Thin ice occurs in sheltered areas of the central Baltic. Fast ice or thin ice is present in some inner fjords of the Skagerrak.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 40–70 cm thick fast ice, from the Finnish coast reaching out to Kemi-3, Oulu-2 and Johan. Off the fast ice in the east, there is 20–50 cm thick consolidated ice to Kemi-2 and Oulu-1. Northeast of Norströmsgrund and Falkensgrund, there is very close, ridged and 10–50 cm thick ice. Else at sea, there is mostly very close, 10–40 cm thick ice that

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is ridged at places. In the west, there is a lead with thin level ice from Norströmsgrund to north of Holmöarna. In the southern Bay of Bothnia, there is 20–40 cm thick fast ice along the Swedish coast and 30–55 cm thick fast ice in the eastern archipelagos. At sea, there is mostly very close 10–40 cm thick ice and thin level ice in the west.
With mostly moderate frost ice formation continues the coming day and there will be increasing ice drift to the south/southwest.

Norra Kvarken

In the archipelagoes off Vaasa, there is 25–55 cm thick fast ice to Ensten; further out there is 5–20 cm thick, very open ice. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos and mostly open water further out. Between the mainland and Holmöarna, there is open to very close, 5–30 cm thick ice. At sea in the north, there is close ice, 5–25 cm thick to Holmögadd followed by very open ice and open water with strings and stripes further south.
With at mostly light frost overnight some ice formation can occur but else no larger changes are expected.

Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick fast ice in the upper part and 20–35 cm fast or level ice in the lower part. In the bays along the western coast, there is 10–40 cm thick fast ice or new ice. Further out in the south, there is open water. Along the eastern coast, there is 10–40 cm fast ice in the inner archipelagos and thin, very close ice at the ice edge.
No larger changes are expected the coming day.

Archipelago and Åland Sea

10–30 cm thick fast ice is present in the inner archipelagos of the coasts. Further out in the east and around the Åland Islands, there is thin level ice. In the outer archipelago at the eastern coast, there is mainly open water.
No larger changes are expected the coming day.

Gulf of Finland

From St. Petersburg up to the longitude of Tolbuchin lighthouse, there is 30–40 cm thick fast ice In the Bay of Vyborg and the Bjerkesund, there is 25–40 cm fast ice. At sea east of the line Haapasaari– Seskar, there is mostly very close, 15–30 cm thick ice. Further west to Moščnyj, there is very open, 5–20 cm thick ice. In the archipelagos of the northern coast, there is fast ice, 10–30 cm thick in the west and 20–45 cm thick in the east. In Luga Bay, there is fast ice near the coast and 5–20 cm thick, very open ice further out. In Narva Bay, there is a narrow band of fast ice near the coast north of Narva, followed by a band of very close ice further out.
No larger changes are expected due to temperatures around 0° C, but the ice will drift to the northeast.

Gulf of Riga

In Moonsund, there is 10–20 cm thick fast near the coasts. Between the islands is close ice and on the fairways is mostly very open ice. In Pärnu Bay, there is 15–25 cm thick fast or very close ice to the south tip of the island Manilaid.
The ice will drift to the northeast and else there will be no larger changes.

Northern Baltic

In Lake Mälaren, there is 5–30 cm thick fast ice or level ice in the western part, and further east, there is mostly thin level or new ice. Along the Swedish coast, there is new ice or thin open ice in sheltered bays.
Some ice melt is expected.

Central Baltic

Thin open ice or new ice occurs in sheltered bays along the Swedish coast.

Ice melt is expected the coming day.

Southeastern Baltic

In the Curonian Lagoon, there very close, 5–15 cm thick ice along the coast in the eastern part.

Ice melt is expected the coming day.

Skagerrak and Kattegat

In some inner fjords of the Skagerrak, there is up to 30 cm thick fast ice at a few places.

Ice melt is expected the coming day.

Swedish Lakes
In Lake Vänern, there is 5–20cm thick fast ice or new ice in bays of the northern coast. Ice melt is 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	2000/4000 dwt	IA Super(5000kW)/IA	09.02.
	Raahe	2000 dwt	IA	16.01.
	Kokkola, Kalajoki, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali, Turku, Koverhar, Lappohja, Helsinki and Sköldvik	2000 dwt	II	01.01.
	Kaskinen, Taalintehdas, Förby, Inkoo, Kantvik	2000 dwt	I	16.01.
	Loviisa and Kotka	2000 dwt	I	04.01.
	Hamina	2000 dwt	I	01.01.
	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 and Luleå	2000 dwt	IA	08.02.
	Karlsborg and Luleå	**4000 dwt**	**IA**	**19.02.**
	Haraholmen and Skelleftehamn	2000 dwt	IB	06.01.
	Haraholmen and Skelleftehamn	**4000 dwt**	**IA**	**19.02.**
	Holmsund, Rundvik and Husum	2000 dwt	IC	15.01.
	Holmsund, Rundvik and Husum	**2000 dwt**	**IB**	**19.02.**
	Örnsköldsvik	2000 dwt	IC	15.01.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand - Skutskär	2000 dwt	II	22.12.
	Köping and Västerås	2000 dwt	IC	27.12.
	Bålsta	1300/2000 dwt	IC/II	27.12.

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, FREJ, SISU, ALE, ODEN and YMER assist in the Bay of Bothnia. ATLE and ZEUS assist in the Quark, VOIMA in the eastern Gulf of Finland.

Norway

Husøysund, Tønsberg indre havn and Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (28.12.21)
Hellefjorden (Kragerø): Navigation temporarily closed. (10.01.22)

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 , 15.02.2022

Shipping route from Narva-Jõssuu	1//0
Paernu, port and bay	73/5
Moonsund	3//1

Finland , 15.02.2022

Roeyttae – Etukari	8446
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	6876
Kemi 2 – Kemi 1	5756
Sea area SW of Kemi 1	5756
Kemi 2 – Ulkokrunni – Virpiniemi	8446
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	6876
Sea area SW of Oulu 1	5346
High Sea N of the latitude of Marjaniemi	5856
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	5746
Raahe lighthouse – Nahkiainen	5346
Latitude Marjaniemi – Ulkokalla, Sea	5876
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	5746
Sea betw. lat. of Ulkokalla –Pietarsaari	5346
Ykspihlaja – Repskaer	8846
Repskaer – Kokkola lighthouse	6366
Sea area off Kokkola lighthouse	5746
Pietarsaari – Kallan	7846
Sea area off Kallan	5746
Sea lat. Pietarsaari – NE Nordvalen	4746
Sea area ENE of Nordvalen	3716
Sea area Nordvalen to W of Norrskaer	2116
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5746
Vaasa lighthouse – Norrskaer	2116
Kaskinen – Sälgrund	5746
Sea area off Sälgrund	4246
Pori harb. to line Pori lighth. – Säppi	5145
Rauma, Harbour – Kylmäpihlaja	7745
Kylmäpihlaja – Rauma lighthouse	5145
Uusikaupunki harbour – Kirsta	8745
Kirsta – Isokari	5245
Naantali and Turku – Rajakari	7245
Rajakari – Lövskär	3115
Lövskär – Korra	5145
Korra – Isokari	3115
Lövskär – Berghamn	2115
Lövskär – Grisselborg	2115
Hanko – Vitgrund	4145
Koverhar – Hästö Busö	1115
Helsinki harbours – Harmaja	5145
Vuosaari harbour – Eestiluoto	2115
Porvoo harbours – Varlax	5245
Valko Harbour – Täktarn	7746
Archipelago fairway Boistö – Glosholm	1106
Archipelago fairway Glosholm–Helsinki	1115
Kotka – Viikari	5346
Viikari – Orrengrund	5346
Orrengrund – Tiiskeri	1115
Hamina – Suurmusta	7846
Suurmusta – Merikari	5346
Merikari – Kaunissaari	5346

Norway , 15.02.2022

Svinesund – Halden	31//
Mossesund	1//1
Husøysund – Tønsberg channel	8245
Tønsberg, inner harbour	8345
Vestfjord (Tønsberg)	8345
Langårsund (Kragerø)	2212

Russian Federation , 15.02.2022

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

Sweden , 15.02.2022

Karlsborg – Maloeren	8546
Sea area off Maloeren	5356
Luleå – Bjoernklack	8446
Bjoernklack – Farstugrunden	5476
E and SE of Farstugrunden	5476
Sandgroenn fairway	8446
Roedkallen – Norstroemsgrund	5476
Haraholmen – Nygrån	8446
Sea area off Nygrån	5356
Skelleftehamn – Gåsoeren	5256
Sea area off Gåsoeren	5256
Sea area off Bjuroeklubb	5146
NE of Nordvalen	4336
SW of Nordvalen	4336
Western Quark (W of Holmoearna)	8346
Umeå – Vaektaren	8446
SE of Vaektaren	4336
Fairway to Husum	2326
Oernskoeldsvik – Hoernskaten	8446
Hoernskaten – Skagsudde	8446
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	5434
Haernoesand – Haernoen	4234
Sundsvall – Draghaellan	8346
Hudiksvallfjaerden	8446
Iggesund – Agoe	5146
Sandarne – Haellgrund	8346
Ljusnefjaerden – Storjungfrun	1206
Gaevle – Eggegrund	8446
Sea area off Eggegrund	1206
Sea area off Orskaer	1201
Oeregrundsgrepen	3222
Hallstavik – Svartklubben	8342
Koeping – Kvicksund	8344

Västerås – Grönsö	8344
Grönsö – Södertälje	5234
Stockholm – Södertälje	5244
Södertälje – Fifong	5044
Fairway to Karlstad	8342
Fairway to Kristinehamn	8342