



Eisbericht Nr. 73

Amtsblatt des BSH

Jahrgang 97

Nr. 73

Wednesday, 28.02.2024

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 70 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–60 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes sowie unter Druck stehendes Eis, das teilweise sehr schwer zu passieren ist. Weiter südlich treibt auf See zuerst 10–35 cm dickes, sehr dichtes Eis und dann sehr lockeres Eis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See liegt im Westen meist 10–40 cm dickes, sehr dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb kommt im Westen offenes Wasser und sehr lockeres Eis vor. 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 60°10'N meist sehr dichtes, 10–35 cm dickes Eis und im Südosten treibt meist sehr lockeres Eis. Im Rigaischen Meerbusen kommt im Nordosten zu 35 cm dickes Festeis vor. Auf See treibt im Norden entlang der Küste 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 70 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, ridged and rafted ice with pressure that is very difficult to force at places. Further south at sea there is 10–35 cm thick very close ice followed by very open ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea in the west there is 10–35 cm thick, very close ice. Off the coasts of the Sea of Bothnia open water and very open ice in the west. 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 very close, 10–35 cm thick drift ice north of 60°10'N and in the southeast there is mostly very open ice at sea. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and 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; 40–70 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°30'N there is mostly 30–60 cm thick, ridged and rafted ice; ice pressure occurs in the field and it is very difficult to force at places. Further south there is 10–35 cm thick very close ice and south of 64°20'N there is mostly open water to 5–20cm

Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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Nachdruck, auch auszugsweise, verboten

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thick open ice at sea, but also very close ice north-east of Holmääarna. Leads with very open ice or open water are present in places along the Swedish coast southwards of Skellefteå Bay and along the Finnish coast from south of Raahe southwards.

The Quark

There is 35–50 cm thick fast ice in the Vaasa archipelago out to Ensten followed by 10–30 cm thick very open ice to Norrskär. Along the Swedish coast there is up to 40 cm thick fast ice. Up to about 10-15nm outside the Swedish coast there is

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 15–40 cm thick fast ice. In the east there shuga at places at the fast ice edge. Outside the fast ice in the west there is open water and 5-15cm thick very

Archipelago Sea and Åland Sea

In the Archipelago Sea there is 25–50 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 and the Bjerkesund there is 35–45 cm thick fast ice and very close ice is present in the entrances. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 45–55 cm thick fast ice. In Koporye Bay there is fast ice along the coast; Narva Bay is ice

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; on the fairway Vohilaid – Rumpo there is open ice. Off the south coast of Saaremaa there is very close, 5–20 cm thick ice off the coast. In the Bay of Pärnu, there is 25–45 cm thick fast ice to about the

Central Baltic

Thin level ice is present at places along the Swedish coast north of Oskarshamn with open ice being present in bays to south of Kalmar.

Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays there is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund, and Drammensfjord. Along

With a fresh to strong breeze from the south and at most light frost the ice will drift northwards with no large changes in the overall ice distribution, but the ice pressure and difficult conditions in the north will persist.

10-40cm thick, ridged, very close ice with brash ice at the edge. Else at sea there is mostly open water.

With temperatures around 0 °C and a mostly fresh southerly breeze, no larger change is expected.

open ice out to about 18°45'E. From Högbonden (63°50'N) towards the Quark there is very close ice outside the coast. With temperatures mostly above 0 °C and some southerly to southwesterly wind some thin ice at sea may disappear but else no larger changes are expected.

level ice in bays along the coast. Further out is some new ice in the northern part.

With temperatures mostly above 0 °C and light southerly wind no larger change is expected.

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

free. Off the northern fast ice mostly very close ice to about 60°10'N; 10–30 cm thick in the west and 10–35 cm thick and in placed ridged ice in the east. Further south and east of about Mosnyj, there is open water to very open ice. In the Lake Saimaa 30–50 cm thick ice.

With temperatures around 0 °C and light wind no larger change is expected.

line Lindi – Tahkuranna and further out there is very close to the line Manilaid – Rannametsa. There is open water in Irben Strait.

With temperatures around 0 °C and light wind no larger change is expected.

With temperatures mostly above 0 °C and light wind some ice melt but overall no larger change is expected.

the Swedish coast of the Skagerrak there is very open ice in few sheltered areas.

With temperatures mostly above 0 °C no larger

change is expected.

Swedish Lakes

In Lake Vänern 10–30 cm thick fast ice is present at the coasts. In the Dalbosjön there is 5–20 cm thick drift ice of varying concentrations. In the

Värmlandssjön there is open water. With temperatures above 0 °C so ice melt but else no larger change is expected.

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 (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 Örnsköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IA	17.02.
	Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär and Öregrund	2000 dwt	IC	26.02.
	Härnösand, Söråker and Sundsvall	2000 dwt	IB	26.02.
	Hargshamn	2000 dwt	IC	04.01.

	Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
	Kappelskär and Nynäshamn	2000 dwt	II	04.01.
	Köping and Västerås	2000 dwt	IC	26.02.
	Balsta	2000 dwt	IC	26.02.
	Stockholm and Södertälje	2000 dwt	II	04.01.
	Oxelösund, Norrköping and Västervik	2000 dwt	II	04.01.
	Trollhätte Canal and Göta Älv	2000 dwt	II	23.02.
	Vänern	2000 dwt	IC	26.02.

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.

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, KONTIO and URHO assist in the Bay of Bothnia. ATLE and OTSO assist in the southern Bay of Bothnia and in the Quark. FENNICA assists in the Quark. ZEUS, CALYPSO, BALTICA and BRAGE VIKING assist in the Sea of Bothnia. VOIMA and NORDICA assist the Gulf of Finland. ALE assists in the Vänern.

Norway

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, 28.02.2024

Paernu, port and bay	7475
Irben Strait	1///
Moonsund	7353

Finland, 27.02.2024

Röyttä – Etukari	8546
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	5856
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8446
Vaelimatala to line Ulkokalla – Ykskivi	4476
Sea betw. lat. of Ulkokalla –Pietarsaari	4476
Ykspihlaja – Repskär	8446
Repskär – Kokkola lighthouse	5476
Sea area off Kokkola lighthouse	2726
Pietarsaari – Kallan	8446

Sea area off Kallan	5856
Sea lat. Pietarsaari – NE Nordvalen	2336
Sea area ENE of Nordvalen	5376
Sea area Nordvalen to W of Norrskär	5376
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5356
Vaasa lighthouse – Norrskär	4346
Sea area SW of Norrskär	1106
Kaskinen – Sälgrund	8446
Sea area off Sälgrund	7356
High sea from N to latitude Yttergrund	2336
Pori harb. to line Pori lighth. – Säppi	7366
Sea W of line Pori lighthouse – Säppi	3736
High sea betw. lat. Yttergrund a. Rauma	1726
Rauma, Harbour – Kylmäpihlaja	7766
Kylmäpihlaja – Rauma lighthouse	3736
Sea area W of Rauma lighthouse	2716
The high sea S of the latitude of Rauma	1216
Uusikaupunki harbour – Kirsta	8846
Kirsta – Isokari	7756
Isokari – Sandbäck	3736
Sea area off Sandbäck	1216
Sea area N of Sälskär	1115
Sea area N of Märket	1005
Sea area W of Märket	2005
Maarianhamina – Marhällan	1225
Naantali and Turku – Rajakari	8846
Rajakari – Lövskär	8846

Lövsjär – Korra	8846	E and SE of Farstugrunden	5576
Korra – Isokari	3326	Sandgrönn fairway	8546
Lövsjär – Berghamn	8346	Rödskallen – Norströmsgrund	5576
Berghamn – Stora Sottunga	4146	Haraholmen – Nygrån	8546
Stora Sottunga – Ledskär	8746	Sea area off Nygrån	5456
Lövsjär – Grisselborg	8346	Skelleftehamn – Gåsören	8446
Grisselborg – Norparskär	4146	Sea area off Gåsören	8446
Hanko – Vitgrund	8342	Sea area off Bjuröklubb	8446
Vitgrund – Utö	4145	NE of Nordvalen	1006
Koverhar – Hästö Busö	7356	SW of Nordvalen	1006
Hästö Busö – Ajax	3326	Western Quark (W of Holmöarna)	5476
Inkoo a. Kantvik – sea area Porkkala	7356	Umeå – Väktaren	5476
Sea area at Porkkala	4356	SE of Väktaren	5476
Helsinki harbours – Harmaja	7756	NE and SE of Sydostbrotten	1006
Harmaja – Helsinki lighthouse	5356	Fairway to Husum	5476
Fairway Helsinki – Porkkala – Rönnskär	5756	Örnsköldsvik – Hörnskatan	8446
Vuosaari harbour – Eestiluoto	7756	Hörnskatan – Skagsudde	8446
Eestiluoto – Helsinki lighthouse	5756	Sea area off Skagsudde	5476
Porvoo harbours – Varlax	5246	Fairway W of Ulvöarna	8446
Varlax – Porvoo lighthouse	5756	Sea area E of Ulvöarna	5476
Valko Harbour – Täktern	7746	Ångermanälven north Sandö Bridge	8444
Archipelago fairway Boistö – Glosholm	5356	Ångermanälven south Sandö Bridge	8444
Archipelago fairway Glosholm–Helsinki	8346	Härnösand – Härnön	8444
Kotka – Viikari	8346	Sea area off Härnö	2324
Viikari – Orregrund	5356	Sundsvall – Draghällan	8446
Orregrund – Tiiskeri	5356	Draghällan – Åstholmsudde	2226
Tiiskeri – Kalbådagrund	2326	Off Åstholmsudde and Brämön	1006
Hamina – Suurmusta	8446	Hudiksvallfjärden	8346
Suurmusta – Merikari	7346	Iggesund – Agö	8346
Merikari – Kaunissaari	5346	Sea area off Agö	2226
		Sandarne – Hällgrund	8346
Latvia, 28.02.2024		Sea area off Hällgrund	2226
Irben Strait, fairway	1000	Ljusnefjärden – Storzjungfrun	8346
		Sea area off Storzjungfrun	2226
Norway, 27.02.2024		Gävle – Eggegrund	8346
Svinesund – Halden	33//	Sea area off Eggegrund	1006
Drammensfjord	3315	Sea area off Orskär	1006
Tønsberg, inner harbour	82/3	Öregrundsgrepen	8346
Vestfjord (Tønsberg)	6963	Passage at Grundkallen	1006
Larviksfjorden (Stavern – Larvik)	121/	Sea area off Svartklubben	1006
		Hallstavik – Svartklubben	8346
Russian Federation, 28.02.2024		Trälhavet – Furusund – Kapellskär	2026
Port of St. Petersburg	89//	Stockholm – Trälhavet – Klövholmen	2026
St. Petersburg – E-point island Kotlin	89//	Klövholmen – Sandhamn	1006
E-point Kotlin – long. lighth. Tolbukhin	89//	Trollharan – Langgarn	1006
Lighth. Tolbukhin – lighth. –Šepelevskij	32//	Köping – Kvicksund	8344
Lighthouse Šepelevskij – island Sescar	32//	Västerås – Grönsö	8344
Island Sescar – Island Sommers	32//	Grönsö – Södertälje	8344
Vyborg, port and bay	89//	Stockholm – Södertälje	8344
Island Vichrevoj – Island Sommers	53//	Södertälje – Fifong	8244
Strait Bjerkesund	89//	Norrköping – Hargökalv	1001
E-point Bol'šoj Ber'ozovyj – Šepelevskij	84//	Västervik – Marsholmen – Idö	5242
Luga bay	22//	Udevalla – Stenungsund	2121
Apr. Luga bay – line Moš.-Šepel.	22//	Vänernborgsviken	5356
		Fairway through Lurö archipelago	3356
Sweden, 28.02.2024		Fairway to Gruvön	8346
Karlsborg – Malören	8546	Fairway to Karlstad	8346
Sea area off Malören	5576	Fairway to Kristinehamn	8346
Luleå – Björnklack	8546	Fairway to Otterbäcken	8346
Björnklack – Farstugrunden	5576	Fairway to Lidköping	1206