



Eisbericht Nr. 81

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Nr. 81

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1

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 30–70 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes Eis, das teilweise schwer zu passieren ist. Weiter südlich kommt im Westen offenes Wasser vor und im Osten treibt lockeres Eis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis; auf See treibt 5-30cm dickes, lockeres Eis und im Westen kommt 15–50 cm dickes, sehr dichtes Eis vor, was bis in die nördliche Bottensee reicht. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb kommt Neueis und offenes Wasser vor. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Auf See treibt im Westen 3-20cm dickes dichtes Eis und sehr dichtes, 5–35 cm dickes Eis im Osten. Südlich davon kommt offenes Wasser vor. Im Rigaischen Meerbusen kommt im Nordosten zu 40 cm dickes Festeis und an den Küsten treibt örtlich sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Oskarshamn örtlich dünnes Eis vor, teilweise aber auch bis 30 cm dickes Festeis 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 30–70 cm thick, very close, ridged and rafted ice that is difficult to force at places. Further south there is open water in the west and open ice in the east. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea there is 5-20cm thick, open ice and in in the west there is 15–50 cm thick, very close ice stretching into the northern Sea of Bothnia. At the coasts of the Sea of Bothnia there is fast ice, up to 55cm thick in the east and up to 30 cm thick in the west. At sea there is new ice and open water. 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. At sea there is 3-20cm thick close ice in the west and 5-35cm thick very close ice in the east. Further south mainly open water. In the northeastern Gulf of Riga there is up to 40 cm thick fast ice at the coast with very close ice in places along the coast. Else thin ice is present at places, but also up to 30cm thick fast ice, 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 25–65 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and

Raahe lighthouse. At sea north of a line Nygrån to Kalajoki there is mostly 40–70 cm thick, ridged and rafted ice; the field is difficult to force at places. Leads and cracks are present in places. Further

Herstellung und Vertrieb

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south there is first a band of 10-35cm thick very close ice, then 5-20cm thick open ice in the east and open water in the west.

The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten. Farther out 10-30cm thick ice of varying concentrations as well as new ice. Along the Swedish coast there is up to 40 cm thick fast ice with adjacent consolidated ice. Off this ice, there is a narrow lead with very open ice and then

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. On Ångermanälven, there is 15–40 cm thick fast ice. Off the coast in the east there is mostly new ice with an area of 5-25cm thick close, rafted ice at sea in the north. Just outside the northwestern coast, north of about

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, fast ice or level ice with some areas of open water is present in the outer archipelagos to the Åland Islands. In the Åland Sea

Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice with some open areas. Along the outer Swedish coast there is thin 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 60 cm thick in the east. In the Vyborg Bay there is 35-45cm thick fast ice and in the Bjerkesund there is 20–45 cm thick fast ice; very close ice is present in both entrances. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 40–50 cm thick fast ice. Off the northern fast ice and the adjacent small band of very close ice there is a lead (from outside Helsinki to the Newa Bay), Further

Gulf of Riga

In Väinameri there is 20–35 cm thick fast ice near the coasts and very close, 10–30 cm thick ice at sea with some areas of very open ice or open water. Off the south coast of Saaremaa there is a band with very close, 5–20 cm thick ice. In the Bay of Pärnu, there is 20–40 cm thick fast ice to about the line Lindi – Uulu and further out, up to the line

Central Baltic

Thin broken ice or open water is present in sheltered areas along the Swedish coast.

Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays is

With light to moderate frost and light winds from more southerly directions some ice formation is expected and the ice will drift northeastwards.

a region with 15–50 cm thick, ridged, very close ice. Else at sea there is mostly 5-30cm thick open ice.

With light frost at sea and possible moderate frost at the coasts some ice formation is expected. The ice will drift northwards.

Härnösand, there is consolidated or very close, 10–50 cm thick ridged ice. In the central part open water north of Finngrundet.

With light frost near the coast and temperatures around 0°C at sea some new ice formation is expected.

there is 5–20 cm thick fast or level ice in bays along the coast.

With mostly light frost, but also day temperatures above 0°C in the west, no larger change is expected.

With temperatures around 0 °C no larger changes are expected.

out at sea there is 5-30cm thick close ice east of 23°45'E and later 5-35cm thick, very close ice east of about 27°30'E. Along the southern coast there is open water in the Narva and Luga bay and very close ice in Koporye Bay. In Lake Saimaa there is 30–50 cm thick ice.

With light frost and southerly winds, some new ice formation is possible, but overall no larger change is expected.

southern point of Kihnu – Rannametsa, there is very close ice in the northwest and else very open ice or open water.

With temperatures mostly above 0°C some ice melt is expected and the ice drifts towards the northwest.

With temperatures mostly above 0 °C some ice melt is expected.

thin level ice or fast ice notably near Tønsberg,

Kragerø, Svinesund, and Drammensfjord.
With temperatures mostly above 0 °C some ice

melt is expected.

Swedish Lakes

In Lake Vänern 5–20 cm thick fast ice is present in places at the coasts. In the Dalbosjön there is 5–20 cm thick, very close drift ice in the northwestern

part. At sea mostly ice free.
With temperatures mostly above 0 °C some ice melt 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, Rauma	2000 dwt	I	06.03.
	Kaskinen and Kristiinankaupunki	2000 dwt	IB	06.03.
	Uusikaupunki	2000 dwt	IB	06.03.
	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/Ice 2	11.03.
	Vysotsk	-	Ice 1/Ice 2	11.03.
	Primorsk	-	Ice 1/Ice 2	11.03.
	St. Petersburg, Ust-Luga		Ice 1/Ice 2	15.3.
	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.
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. OTSO assist in the southern Bay of Bothnia. ATLE and FENNICA assist in the Quark. ZEUS and CALYPSO assist in the eastern Bothnian Sea. VOIMA and NORDICA assist the Gulf of Finland. ALE assists in the Vänern.

Norway

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 and Primorsk.

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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Norway, 11.03.2024

Svinesund – Halden	33//
Drammensfjord	2201
Tønsberg, inner harbour	82/3
Vestfjord (Tønsberg)	6963
Larviksfjorden (Stavern – Larvik)	121/

Russian Federation, 11.03.2024

Port of St. Petersburg	89//
St. Petersburg – E-point island Kotlin	89//
E-point Kotlin – long. lighth. Tolbuhkin	53//
Lighth. Tolbuhkin – lighth. –Šepelevskij	10//
Lighthouse Šepelevskij – island Sescar	52//
Island Sescar – Island Sommers	23//
Island Sommers – S-point Gogland	32//
S-point isl. Gogland – long. p. Kunda	32//
Vyborg, port and bay	89//
Island Vichrevoj – Island Sommers	53//
Strait Bjerkesund	89//
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53//
Appr. Luga bay – line Moš.-Šepel.	21//

Estonia, 12.03.2024

Shipping route Kunda meridian to Tallinn	1///
Paernu, port and bay	7475
Shipp. route from Paernu to Irben Strait	2///
Moonsund	7343

Finland, 12.03.2024

Röyttä – Etukari	8546
Etukari – Ristinmatala	8546
Ajos – Ristinmatala	8546
Ristinmatala – Kemi 2	7476
Kemi 2 – Kemi 1	5476
Sea area SW of Kemi 1	5476
Kemi 2 – Ulkokrunni – Virpiniemi	7476
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	7476
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8546
Heikinkari – Raahe lighthouse	6856
Raahe lighthouse – Nahkiainen	5476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8446
Vaelimatala to line Ulkokalla – Ykskivi	5376
Sea betw. lat. of Ulkokalla –Pietarsaari	5376
Ykspihlaja – Repskär	7476
Repskär – Kokkola lighthouse	5476
Sea area off Kokkola lighthouse	3736
Pietarsaari – Kallan	8446
Sea area off Kallan	3736
Sea lat. Pietarsaari – NE Nordvalen	3736
Sea area ENE of Nordvalen	3736
Sea area Nordvalen to W of Norrskär	5876
Vaskiluoto – Ensten	8356

Ensten – Vaasa lighthouse	3736	Luleå – Björnklack	8546
Vaasa lighthouse – Norrskär	3736	Björnklack – Farstugrunden	5576
Sea area SW of Norrskär	3736	E and SE of Farstugrunden	5576
Kaskinen – Sälgrund	8446	Sandgrönn fairway	8546
Sea area off Sälgrund	8446	Rödkallen – Norströmsgrund	5456
High sea from N to latitude Yttergrund	3736	Haraholmen – Nygrån	8546
Pori harb. to line Pori lighth. – Säppi	4046	Sea area off Nygrån	5456
Sea W of line Pori lighthouse – Säppi	4046	Skelleftehamn – Gåsören	8446
High sea betw. lat. Yttergrund a. Rauma	4756	Sea area off Gåsören	5456
Rauma, Harbour – Kylmäpihlaja	8846	Sea area off Bjuröklubb	1306
Kylmäpihlaja – Rauma lighthouse	1706	NE of Nordvalen	3326
Sea area W of Rauma lighthouse	4046	SW of Nordvalen	3326
The high sea S of the latitude of Rauma	0//6	Western Quark (W of Holmöarna)	6456
Uusikaupunki harbour – Kirsta	8846	Umeå – Väktaren	6456
Kirsta – Isokari	7756	SE of Väktaren	3326
Isokari – Sandbäck	1706	NE and SE of Sydostbrotten	5476
Sea area off Sandbäck	1006	Fairway to Husum	6476
Naantali and Turku – Rajakari	8846	Örnsköldsvik – Hörnskatan	8446
Rajakari – Lövskär	8846	Hörnskatan – Skagsudde	6476
Lövskär – Korra	8846	Sea area off Skagsudde	6476
Korra – Isokari	2016	Fairway W of Ulvöarna	6476
Lövskär – Berghamn	8346	Sea area E of Ulvöarna	5476
Berghamn – Stora Sottunga	3136	Ångermanälven north Sandö Bridge	8444
Stora Sottunga – Ledskär	2116	Ångermanälven south Sandö Bridge	8444
Lövskär – Grisselborg	7346	Härnösand – Härnön	8444
Grisselborg – Norparskär	4746	Sea area off Härnö	1006
Hanko harbours – Hanko 1	1705	Sundsvall – Draghällan	4436
Sea area S of Hanko 1	0//5	Draghällan – Åstholmsudde	1006
Hanko – Vitgrund	5145	Off Åstholmsudde and Brämön	1006
Vitgrund – Utö	5145	Hudiksvallfjärden	8346
Koverhar – Hästö Busö	8346	Iggesund – Agö	8346
Hästö Busö – Ajax	2726	Sandarne – Hällgrund	8346
Sea area S of Ajax	1706	Ljusnefjärden – Storjungfrun	8346
Inkoo a. Kantvik – sea area Porkkala	7356	Gävle – Eggegrund	8346
Sea area at Porkkala	4756	Öregrundsgrepen	8346
Sea area S of Porkkala lighthouse	4756	Hallstavig – Svartklubben	8346
Helsinki harbours – Harmaja	7356	Trälhavet – Furusund – Kapellskär	1006
Harmaja – Helsinki lighthouse	5356	Stockholm – Trälhavet – Klövholmen	1006
Helsinki lighth. – sea S of Porkkala lh.	4756	Klövholmen – Sandhamn	1006
Fairway Helsinki – Porkkala – Rönnskär	5356	Trollharan – Langgarn	1006
Vuosaari harbour – Eestiluoto	5356	Köping – Kviksund	8344
Eestiluoto – Helsinki lighthouse	4756	Västerås – Grönsö	8344
Porvoo harbours – Varlax	7356	Grönsö – Södertälje	8344
Varlax – Porvoo lighthouse	5356	Stockholm – Södertälje	8344
Porvoo lighthouse – Kalbådagrund	4756	Södertälje – Fifong	3124
Sea Kalbådagrund – Helsinki lighthouse	4756	Norrköping – Hargökalv	1000
Valko Harbour – Tåktarn	7346	Västervik – Marsholmen – Idö	2121
Archipelago fairway Boistö – Glosholm	5356	Fairway to Gruvön	8396
Archipelago fairway Glosholm–Helsinki	7356	Fairway to Karlstad	5376
Kotka – Viikari	8346	Fairway to Kristinehamn	8396
Viikari – Orregrund	5356		
Orregrund – Tiiskeri	5356		
Tiiskeri – Kalbådagrund	4756		
Hamina – Suurmusta	8446		
Suurmusta – Merikari	7346		
Merikari – Kaunissaari	5346		
Sweden, 12.03.2024			
Karlsborg – Malören	8546		
Sea area off Malören	5576		