



# Eisbericht Nr. 60

## Amtsblatt des BSH

Jahrgang 97

Nr. 60

Friday, 09.02.2024

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### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 60 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Nordosten zumeist 20–50 cm dickes, sehr dichtes Eis, örtlich aufgepresst, übereinandergeschoben und teilweise schwer zu passieren. Im Süden treibt auf See 5–30 cm dickes, dichtes Eis sowie örtlich Neueis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See treibt Neueis sowie örtlich dichtes, bis 30 cm dickes Eis. An den Küsten der Bottensee kommt im Osten bis 45 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb befindet sich Neueis. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt und in der Ålandsee kommt auf See Neueis vor. Im Osten und Norden des Finnischen Meerbusens liegt bis 50 cm dickes Festeis und im Osten treibt auf See dichtes bis sehr dichtes, bis 35 cm dickes Eis und Neueis weiter westlich. Im Rigaischen Meerbusen kommt im Nordosten bis zu 35 cm dickes Festeis vor und entlang der nordöstlichen Küste treibt sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Karlskrona etwas dickeres Eis vor.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 60 cm thick in the north and up to 50 cm thick in the south. At sea in the northeast, there is mostly 20–50 cm thick, very close, partly ridged and rafted ice that is difficult to force at places. At sea in the south there is 5–30 cm thick close ice and in places new ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea there is new ice and an area of up to 30 cm thick close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 45 cm thick in the east and up to 30 cm thick in the west. Further out there is new ice. Level ice or fast ice covers large parts of the Archipelago Sea and new ice is present at sea of the Sea of Åland. There is up to 50 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the eastern part there is up to 35 cm thick close and very close ice at sea and new ice further west. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and along the northeastern coast there is very close ice with thinner ice and new ice further out. Else thicker ice is present in the Mälaren, Vänern, Norwegian fjords and the along the Swedish coast north of Karlskrona.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice with some consolidated ice further out; 35–60 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 Raa-

he lighthouse. In the north and east runs a lead covered with thin level ice past Malören – Kemi-1 – Merikallat to off Raahe. At sea there is mostly 20–50 cm thick, very close, ridged and rafted ice from about Ulkokalla to Norströmsgrund. The ice field is

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

[www.bsh.de/eis](http://www.bsh.de/eis)

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difficult to force at places. Further towards the southwest there is 20–40 cm thick, close drift ice. Else at sea there is mostly 5–30 cm thick close ice with thin level at places to the Quark. Along the southern Finnish coast tight brash ice is present in places off the fast ice edge. Further out follows a wide

### The Quark

There is 30–50 cm thick fast ice in the Vaasa archipelago out to Ensten and 5–30 cm thick very close ice to Vaasa lighthouse. Along the Swedish coast there is up to 40 cm thick fast ice. Around Sydostbrotten there is an area of 5–30 cm thick, close ice. Else at sea, there is thin level ice, new

### Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–45 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–30 cm thick fast ice. Further out along the Finnish coast there is thin level ice, new ice and ice formation to about 25 NM off the coast. Off the

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is 20–45 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, level or fast ice with new ice at places is present in the outer archipelagos to the Åland Islands. In the Åland Sea there is 5–15 cm thick fast or level ice in bays along the coast

### Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. At the outer Swedish coast there is 5–20 cm thick fast ice or level ice in the archipelagos and very open to open drift ice in some larger channels.

### Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–30 cm thick in the west and up to 50 cm thick in the east. In the Vyborg Bay there is 30–40 cm thick fast ice and in the Bjerkesund there is 25–35 cm thick fast ice. From St. Petersburg to past Kotlin there is 30–40 cm thick fast ice. Further out is first thin level ice and then very close, 10–35 cm thick partly ridged ice to about the

### Gulf of Riga

In Väinameri there is 25–35 cm thick fast ice near the coasts and very close, 5–20 cm thick ice at sea. Off the southern coast of Saaremaa there is new ice. From the southern entrance to Väinameri to the island Ruhnu, there is first close and then open, 5–20 cm thick drift ice and new ice. In the Bay of Pärnu, there is 25–35 cm thick fast ice.

### Central Baltic

Thin level ice is present at places along the Swedish coast. In the central part of the Kalmarsund there is open water. In Ventspils port there is very

band of new ice.

With severe to very severe frost ice formation and ice growth will continue over the weekend. There will be a slight ice drift mostly in northerly directions but also slightly varying in direction

ice and ice formation.

With mostly severe frost at sea, ice formation and ice growth will continue over the weekend. First the ice will drift slightly to the north and from Saturday slowly increasing to the west.

Swedish coast, there is new ice and ice formation. With light to moderate frost in the west and up to severe frost in the east new ice formation will continue over the weekend. The ice will drift in westerly directions.

and new ice or very open ice at sea.

With light to moderate frost in the west and up to severe frost in the east new ice formation will continue over the weekend. The ice will drift in westerly directions.

With light to moderate frost some new ice formation and ice growth is expected over the weekend.

line Luga Bay – Gogland – Kotka. Further southwest is close, 5–30 cm thick drift ice and new ice to about 26°40'E. Still further west to about 25°20'E and else along the coasts and fast ice edge, there is new ice.

With moderate and in the east severe frost, ice formation and ice growth will continue over the weekend. The ice will drift in westerly directions.

Further out is first very close ice, 5–20 cm thick to past Kihnu and then open drift ice as well as new ice. New ice is present along the eastern coast. Very open ice is present in the port of Riga.

With mostly light to moderate frost ice formation and ice growth will continue over the weekend. The ice will drift in westerly directions.

open ice.

With temperatures increasing from light frost to slightly above 0 °C, some ice formation is possible

but overall no larger changes are expected.

### Southeastern Baltic

In the Curonian Lagoon, there is 15–20 cm thick, very close ice in the eastern part and else open water. In Vistula Lagoon some very close, thin ice

is present near Kaliningrad.

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

### Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund and Drammensfjord. Along the Swedish coast of the Skagerrak there is very open ice in some sheltered areas.

With light to moderate frost along the Norwegian coast, some ice formation and ice growth is expected over the weekend. Further south some ice formation is possible but temperatures are increasing to slightly above 0 °C during the weekend.

### Swedish Lakes

In Lake Vänern 5–30 cm thick fast ice is present at the coasts. The western part is covered by new ice, but very close ice is drifting at places. In the eastern part new ice along the coast and open

water at sea.

With light to moderate frost some further ice formation and ice growth is expected over the weekend.

Dr. W. Aldenhoff

## Restrictions to Navigation

|                | Harbour/District  | At least<br>dwt/hp/kW | Ice Class    | Begin         |
|----------------|---|-----------------------|--------------|---------------|
| <b>Estonia</b> | Pärnu   | 1800 kW               | 1B (Lloyd's) | 27.01.        |
|                | Kunda and Sillamäe  | 1200 kW               | II (Lloyd's) | 04.02.        |
| <b>Finland</b> | Tornio, Kemi and Oulu                                     | 2000/4000 dwt         | IA Super/IA  | 13.01.        |
|                | Vaasa   | 2000 dwt              | IA           | 10.01.        |
|                | Raahe, Kalajoki, Kokkola and Pietarsaari                  | 4000 dwt              | IA           | 13.01.        |
|                | Pori and Rauma  | 2000 dwt              | I            | 13.01.        |
|                | <b>Rauma</b>  | <b>2000 dwt</b>       | <b>IB</b>    | <b>14.02.</b> |
|                | Kaskinen, Kristiinankaupunki and Uusikaupunki             | 2000 dwt              | IB           | 23.01.        |
|                | <b>Uusikaupunki</b>                                       | <b>2000 dwt</b>       | <b>IA</b>    | <b>11.02.</b> |
|                | 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.        |
|                | Taalintehdas, Förby, Koverhar, Lapohja, Inkoo and Kantvik | 2000 dwt              | I            | 13.01.        |
|                | 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.       |               |
| <b>Russia</b>  | Vyborg  | -                     | Ice 1        | 30.12.        |
|                | Vysotsk   | -                     | Ice 1        | 30.12.        |
|                | Primorsk  | -                     | Ice 1        | 01.02.        |
|                | Ust-Luga  | -                     | Ice 1        | 29.12.        |

|               |  |          |             |        |
|---------------|--|----------|-------------|--------|
| <b>Sweden</b> | Karlsborg  | 4000 dwt | IA (2000 t) | 14.01. |
|               | Lulea, Haraholmen and Skelleftehamn  | 4000 dwt | IA          | 14.01. |
|               | Rundvik, Husum and Örnsköldsvik  | 2000 dwt | IB          | 17.01. |
|               | Holmsund   | 2000 dwt | IB          | 04.01. |
|               | Angermanälven  | 2000 dwt | IB          | 18.12. |
|               | Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet                               | 2000 dwt | IB          | 17.01. |
|               | Gävle  | 2000 dwt | IB          | 17.01. |
|               | Hargshamn  | 2000 dwt | IC          | 04.01. |
|               | Skutskär and Öregrund  | 2000 dwt | IB          | 17.01. |
|               | Hallstavik and Grisslehamn   | 2000 dwt | IC          | 04.01. |
|               | Kappelskär, Stockholm, Nynäshamn and Södertälje  | 2000 dwt | II          | 04.01. |
|               | Köping and Västerås  | 2000 dwt | IB          | 04.01. |
|               | Balsta   | 2000 dwt | IB          | 14.01. |
|               | Oxelösund, Norrköping, Västervik, Oskarshamn, Mönsterås, Kalmar, De-gerhamn, Berkvara, Karlskrona, Stenungsund and Uddevalla | 2000 dwt | II          | 04.01. |
|               | Trollhätte Canal and Göta Älv  | 2000 dwt | IB          | 16.01. |
| Vänern        | 2000 dwt   | IB       | 16.01.      |        |

### 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.

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

### Norway

Mossesundet (Moss): Icebreaker assistance can only be given to vessels of special ice class and of special size. (05.01.24)

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)

Langårsund (Kragerø): Navigation temporarily closed. (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><b>A<sub>B</sub> Amount and arrangements of sea ice</b></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><b>T<sub>B</sub> Topography or form of ice</b></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><b>S<sub>B</sub> Stage of ice development</b></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><b>K<sub>B</sub> Navigation conditions in ice</b></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> |
|--|--|

#### Finland, 09.02.2024

|   |      |
|---|------|
| Oulu harbours – Kattilankalla             | 8446 |
| Kattilankalla – Oulu 1                    | 7476 |
| Sea area SW of Oulu 1                     | 9246 |
| High Sea N of the latitude of Marjaniemi  | 5476 |
| Raahe harbour – Heikinkari                | 8446 |
| Heikinkari – Raahe lighthouse             | 8446 |
| Raahe lighthouse – Nahkiainen             | 9246 |
| Latitude Marjaniemi – Ulkokalla, Sea      | 5476 |
| Rahja harbour – Välimatala                | 8446 |
| Vaelimatala to line Ulkokalla – Ykskivi   | 5146 |
| Sea betw. lat. of Ulkokalla – Pietarsaari | 4356 |
| Ykspihlaja – Repskär                      | 8846 |
| Repskär – Kokkola lighthouse              | 5476 |
| Sea area off Kokkola lighthouse           | 5046 |
| Pietarsaari – Kallan                      | 7366 |
| Sea area off Kallan                       | 5366 |
| Sea lat. Pietarsaari – NE Nordvalen       | 4756 |
| Sea area ENE of Nordvalen                 | 4756 |
| Sea area Nordvalen to W of Norrskär       | 4756 |
| Vaskiluoto – Ensten                       | 8446 |
| Ensten – Vaasa lighthouse                 | 5146 |
| Vaasa lighthouse – Norrskär               | 5146 |
| Sea area SW of Norrskär                   | 4046 |
| Kaskinen – Sälgrund                       | 8446 |

|   |      |
|---|------|
| Sea area off Sälgrund                   | 7366 |
| High sea from N to latitude Yttergrund  | 4146 |
| Pori harb. to line Pori lighth. – Säppi | 5366 |
| Sea W of line Pori lighthouse – Säppi   | 4146 |
| High sea betw. lat. Yttergrund a. Rauma | 4146 |
| Rauma, Harbour – Kylmäpihlaja           | 7766 |
| Kylmäpihlaja – Rauma lighthouse         | 4146 |
| Sea area W of Rauma lighthouse          | 4146 |
| Uusikaupunki harbour – Kirsta           | 8846 |
| Kirsta – Isokari                        | 7766 |
| Isokari – Sandbäck                      | 4146 |
| Sea area N of Märket                    | 4045 |
| Sea area W of Märket                    | 4045 |
| Sea area S of Märket                    | 4045 |
| Maarianhamina – Marhällan               | 2725 |
| Naantali and Turku – Rajakari           | 8846 |
| Rajakari – Lövskär                      | 8846 |
| Lövskär – Korra                         | 7766 |
| Korra – Isokari                         | 5766 |
| Lövskär – Berghamn                      | 8346 |
| Berghamn – Stora Sottunga               | 4046 |
| Stora Sottunga – Ledskär                | 5746 |
| Sea area at Röddhamn                    | 4046 |
| Lövskär – Grisselborg                   | 8346 |
| Grisselborg – Norparskär                | 4046 |

|  |      |                                      |      |
|--|------|--------------------------------------|------|
| Hanko harbours – Hanko 1                 | 4045 | Sea area off Gåsören                 | 8446 |
| Hanko – Vitgrund                         | 8342 | Sea area off Bjuröklubb              | 4356 |
| Vitgrund – Utö                           | 8345 | NE of Nordvalen                      | 4356 |
| Koverhar – Hästö Busö                    | 7346 | SW of Nordvalen                      | 4356 |
| Hästö Busö – Ajax                        | 3016 | Western Quark (W of Holmöarna)       | 5246 |
| Inkoo a. Kantvik – sea area Porkkala     | 7346 | Umeå – Väktaren                      | 5246 |
| Helsinki harbours – Harmaja              | 7706 | SE of Väktaren                       | 4356 |
| Harmaja – Helsinki lighthouse            | 2126 | NE and SE of Sydostbrotten           | 4356 |
| Fairway Helsinki – Porkkala – Rönnskär   | 2126 | Fairway to Husum                     | 5246 |
| Vuosaari harbour – Eestiluoto            | 7706 | Örnsköldsvik – Hörnskatan            | 8346 |
| Eestiluoto – Helsinki lighthouse         | 2126 | Hörnskatan – Skagsudde               | 8346 |
| Porvoo harbours – Varlax                 | 4756 | Sea area off Skagsudde               | 4046 |
| Varlax – Porvoo lighthouse               | 4046 | Fairway W of Ulvöarna                | 8246 |
| Porvoo lighthouse – Kalbådagrund         | 4046 | Sea area E of Ulvöarna               | 4046 |
| Sea Kalbådagrund – Helsinki lighthouse   | 4046 | Ångermanälven north Sandö Bridge     | 8344 |
| Valko Harbour – Täktarn                  | 8846 | Ångermanälven south Sandö Bridge     | 8344 |
| Archipelago fairway Boistö – Glosholm    | 4046 | Härnösand – Härnön                   | 4044 |
| Archipelago fairway Glosholm–Helsinki    | 8346 | Sea area off Härnö                   | 4044 |
| Kotka – Viikari                          | 8346 | Sundsvall – Draghällan               | 4046 |
| Viikari – Orregrund                      | 4046 | Draghällan – Åstholmsudde            | 4046 |
| Orregrund – Tiiskeri                     | 4046 | Off Åstholmsudde and Brämön          | 4046 |
| Tiiskeri – Kalbådagrund                  | 4046 | Hudiksvallfjärden                    | 8346 |
| Hamina – Suurmusta                       | 8346 | Iggesund – Agö                       | 8346 |
| Suurmusta – Merikari                     | 8346 | Sea area off Agö                     | 4046 |
| Merikari – Kaunissaari                   | 5146 | Sandarne – Hällgrund                 | 8346 |
|  |      | Sea area off Hällgrund               | 4046 |
| <b>Latvia, 09.02.2024</b>                |      | Ljusnefjärden – Storzjungfrun        | 8346 |
| Port of Riga                             | 2001 | Sea area off Storzjungfrun           | 4046 |
| Port of Ventspils                        | 2101 | Gävle – Eggegrund                    | 8346 |
| Port of Liepaya                          | 2001 | Sea area off Eggegrund               | 4046 |
|  |      | Sea area off Orskär                  | 4046 |
| <b>Norway, 08.02.2024</b>                |      | Öregrundsgrepen                      | 8246 |
| Svinesund – Halden                       | 33// | Passage at Grundkallen               | 4046 |
| Mossesund                                | 3745 | Passage at Understen                 | 4046 |
| Drammensfjord                            | 5354 | Sea area off Svartklubben            | 4046 |
| Tønsberg, inner harbour                  | 82/3 | Hallstavik – Svartklubben            | 8346 |
| Vestfjord (Tønsberg)                     | 82/3 | Trälhavet – Furusund – Kapellskär    | 3026 |
| Larviksfjorden (Stavern – Larvik)        | 121/ | Stockholm – Trälhavet – Klövholmen   | 3026 |
| Langårsund (Kragerø)                     | 8248 | Klövholmen – Sandhamn                | 3026 |
|  |      | Köping – Kvicksund                   | 8344 |
| <b>Russian Federation, 09.02.2024</b>    |      | Västerås – Grönsö                    | 8344 |
| Port of St. Petersburg                   | 89// | Grönsö – Södertälje                  | 8344 |
| St. Petersburg – E-point island Kotlin   | 89// | Stockholm – Södertälje               | 8344 |
| E-point Kotlin – long. lighth. Tolbukhin | 89// | Södertälje – Fifong                  | 8244 |
| Lighth. Tolbukhin – lighth. –Šepelevskij | 53// | Fifong – Landsort                    | 3126 |
| Lighthouse Šepelevskij – island Sescar   | 53// | Norrköping – Hargökalv               | 4046 |
| Island Sescar – Island Sommers           | 53// | Hargökalv – Vinterklasen – N Kränkan | 2126 |
| Island Sommers– S-point island Gogland   | 52// | Järnverket-Lillhammaren – N Kränkan  | 3226 |
| S-point isl. Gogland – long. p. Kunda    | 42// | Västervik – Marsholmen – Idö         | 5246 |
| Vyborg, port and bay                     | 89// | Blå Jungfrun – Kalmar                | 1106 |
| Island Vichrevoj – Island Sommers        | 53// | Kalmar – Utgrunden                   | 1106 |
| Strait Bjerkesund                        | 89// | Uddevalla – Stenungsund              | 2126 |
| E-point Bol'šoj Ber'ozovyj – Šepelevskij | 53// | Vänernborgsviken                     | 5236 |
| Luga bay                                 | 53// | Fairway through Lurö archipelago     | 4136 |
| Appr. Luga bay – line Moš.-Šepel.        | 53// | Fairway to Gruvön                    | 8346 |
|  |      | Fairway to Karlstad                  | 8346 |
| <b>Sweden, 09.02.2024</b>                |      | Fairway to Kristinehamn              | 8346 |
| Haraholmen – Nygrån                      | 8546 | Fairway to Otterbäcken               | 8346 |
| Sea area off Nygrån                      | 4456 | Fairway to Lidköping                 | 8346 |
| Skelleftehamn – Gåsören                  | 8446 |                                      |      |