



# Eisbericht Nr. 39

## Amtsblatt des BSH

Jahrgang 94

Nr. 39

Tuesday, 09.02.2021

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### Übersicht

In der nördlichen Bottenwiek liegt in den Schären bis 50 cm dickes Festeis. Im westlichen Teil liegt außerhalb des Festes des dichten, bis 15 cm dicken Eis. Im östlichen Teil folgt auf das Festeis sehr dichtes, bis 15 cm dicken Eis bis ungefähr zu Linie Kemi-1 – Ulkokalla. Im zentralen Teil offenes Wasser mit Neueis im Norden und Süden. In den Schären der südlichen Bottenwiek und Norra Kvarkens liegt bis zu 35 cm dicken Festeis sowie weiter außerhalb dichtes bis sehr dichtes, bis 30 cm dicken Eis oder dünnes, ebenes Eis. In der Bottensee entlang der Küste bis zu 15 cm ebenes, dünnes Eis in den Schären und Neueis weiter außerhalb. In der Ålandsee und dem Schärenmeer befindet sich in den Schären dünnes, ebenes Eis sowie an der finnischen Küste auch Festeis und weiter außerhalb Neueis. Im Finnischen Meerbusen kommt in den nördlichen Schären und den östlichen und nordöstlichen Buchten 20–35 cm dicken Festeis vor. Von der östlichen Festesgrenze bis zur Insel Gogland im nördlichen Teil dünnes, ebenes Eis und im südlichen Teil bis zu 20 cm dicken, dichten bis sehr dichten Eis. Westlich Goglands und von der nördlichen Festesgrenze bis zur Mitte des Meerbusens kommt Neueis vor. Im nördlichen Rigaischen Meerbusen kommt in Küstennähe meist ebenes Eis und Neueis vor. Weiter südlich, bis in die westliche Ostsee und entlang der südlichen schwedischen Küste, kommt Neueis, in den Haffs auch bis 15 cm dicken Eis vor. An den Küsten des Skagerraks und Kattegats kommt örtlich Neueis vor. In geschützten Buchten der norwegischen Küste liegt örtlich bis zu 15 cm dicken Eis vor.

### Overview

Up to 50 cm thick fast ice is present in the archipelagos of the northern Bay of Bothnia. Off the fast ice in the western part, there is close, up to 15 cm thick ice. In the eastern part, there is very close, up to 15 cm thick ice up to the line Kemi-1 – Ulkokalla. In the central part, there is open water with new ice in the north and south. In the archipelagos of the southern Bay of Bothnia and Norra Kvarken, there is up to 35 cm thick fast ice and close to very close, up to 30 cm thick ice or thin level ice further out. In the Sea of Åland and the Archipelago Sea, there is thin level ice, along the Finnish coast also fast ice and new ice further out. In the Gulf of Finland, 20–30 cm thick fast ice is present in the northern archipelagos and the eastern and northeastern bays. Off the fast ice in the east to Gogland, there is thin level ice in the northern part and up to 20 cm thick, close to very close ice in the southern part. West of Gogland and from the northern fast ice boundary to the middle of the gulf, there is new ice. In the northern Gulf of Riga, thin level ice and new ice are found in coastal areas. Further south, down to the western Baltic and at the southern Swedish coast,

### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)  
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### Eisauskünfte / Ice Information

Telefon: +49 (0) 381 4563 -780  
 Telefax: +49 (0) 381 4563 -949  
 E-Mail: [ice@bsh.de](mailto:ice@bsh.de)

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there is new ice and up to 15 cm thick ice in the lagoons. Along the coast of the Skagerrak and Kattegat, there is new ice in place in sheltered fjords of the Norwegian coast, there is up to 15 cm thick ice in place.

### **Bay of Bothnia**

In the northern Bay of Bothnia, there is 25–50 cm thick fast ice in the archipelago. Off the fast ice in the western part, there is first a narrow band of 10–20 cm thick very close ice with brash ice barriers in the north followed by very close, up to 15 cm thick ice to 22°30' E at the latitude of Bjuröklubb and 23°20' E in the north. Close ice follows further south. In the eastern part, there is very close, up to 15 cm thick ice up to the line Kemi-1 – Ulkokalla. New ice formation takes places in the central part from

### **Norra Kvarken**

In the archipelago off Vaasa, 10–25 cm thick fast ice is present out to Norra Glöppsten. Off the northern fast ice boundary, there is a 15 nm wide area with close, up to 30 cm thick ice. There are brash ice barriers at places. On the Swedish side, there is 10–25 cm thick fast ice in bays along the coast. Further out, very close ice and thin level ice to Nordvalen

### **Sea of Bothnia**

Along the Finnish coast, there is up to 15 cm thick fast and level ice in the archipelago; further out new ice and ice formation. On the Swedish side, there is thin level ice in sheltered bays in the north and 15–

### **Archipelago and Åland Sea**

There is thin level ice or up to 20 cm fast ice at places in the inner archipelagos of the eastern coast. Further off the east coast, at the archipelagos of the Åland islands and at the western coast, there

### **Gulf of Finland**

Fast ice is present in the northern and eastern part, with a thickness of 10–30 cm in the inner archipelagos of the northern coast, 15–30 cm thickness in the top of Vyborg Bay and Bjerkesund and 25–35 cm thickness from St. Petersburg up to the lighthouse Tolbuchin. Off the fast ice in the east and up to Gogland and Kunda Bay, there is mostly very close, up to 20 cm thick ice in the southern part

### **Gulf of Riga**

In Väinameri, there is 10–20 cm thick fast ice in the eastern bays. On the fairway is close to very close drift ice and new ice in the northern entrance. Between the islands Saaremaa and Hiiumaa, there is 10–15 cm thick level ice. At the south coast of Saaremaa, there is thin level ice and very open ice further out. In the Pärnu Bay, there is a several km wide region of 10–20 cm thick fast ice followed by very close drift ice to the south tip of Kihnu. Close to

Malören to the latitude of Farstugrunden in the north and from 64°30' to Norra Kvarken in the south. Further south along the Finnish coast, there is up to 35 cm thick fast ice in the inner archipelagos followed by very close, up to 15 cm thick ice with brash ice barriers and new ice further out. On the Swedish side, there is thin level ice off the coast. With moderate to severe frost, new ice formation is expected. There will be some weak ice drift to the south.

and Norrskär. North of Holmöarna, there is 10–30 cm thick, very close ice. In the central part at sea, there is 5–25 cm thick, close ice and open ice further south to 28 nm southwest of Norrskär. With moderate to severe frost, new ice formation is expected. The ice will drift southwards.

50 cm thick fast ice on the Angermanälven. New ice is found along the coast. With moderate to severe frost at the coast, new ice formation is expected.

is thin level ice in sheltered places and new ice further out. With moderate to severe frost at the coasts, new ice formation will occur.

and thin level ice in the northern part. West of Gogland and from the northern fast ice to the middle of the gulf is new ice. New ice forms in the bays of the southern coast. In the lake Saimaa there is mostly 15–40 cm thick ice, with rafted ice in the Saimaa Canal. With mostly very severe frost, new ice formation will occur.

very close ice extends to about 28 nm southwest of Kihnu while new ice forms further south along the coast. There is open to close ice in the north of Irbestrait and very open ice further south. Open drift ice is present in the port of Riga and there is open water on the fairway to Irbestrait. With moderate to severe frost, further ice formation is expected and the ice drifts to the west.

**Baltic proper**

New ice is present in sheltered bays down to Karlskrona at the Swedish coast as well as in the ports of Ventspils and Liepaja at the Latvian coast. In the port of Klaipeda, there is open pack ice. The Curonian Lagoon is covered by 5–15 cm thick fast ice and level ice is found in the Vistula lagoon. Very

close, up to 15 cm thick ice is present in the Stettin lagoon. New ice is present along the German coast. With moderate so severe frost in the north and mostly light to moderate frost in the southwest, new ice formation will occur.

**Skagerrak and Kattegat**

Thin ice is present in sheltered areas along most of the coasts. In the Drammensfjord, there is up to 30 cm thick compact ice. Around Tønsberg, there is up to 15 cm thick fast ice. In the Kragerø region there is up to 15 cm thick fast ice. In the Svinesund and

Mossesund, there is up to 15 cm open and compact ice, respectively. With moderate, further inland in the north also severe frost, further ice formation is expected.

**Swedish Lakes**

In Lake Mälaren, there is 5–15 cm thick level ice in the western part and new ice in the eastern part. In sheltered areas of Lake Vänern, there is thin level

ice and new ice. With moderate to severe frost, new ice formation will occur.

Dr. W. Aldenhoff

**Restrictions to Navigation**

|                | Harbour/District                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | At least<br>dwt/hp/kW                                                                                                                                                                         | Ice Class                                                         | Begin                                                                                                                                                          |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Estonia</b> | Pärnu<br><b>Kunda</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1600 kW<br><b>1600 kW</b>                                                                                                                                                                     | IC<br>IC                                                          | 25.01.<br><b>19.02.</b>                                                                                                                                        |
| <b>Finland</b> | Tornio, Kemi and Oulu<br><b>Raahe</b><br>Kalajoki, Kokkola and Pietarsaari<br>Vaasa<br><b>Kalajoki, Kokkola and Pietarsaari</b><br><b>Vaasa</b><br>Kristiinankaupunki, Pori, Rauma,<br>Uusikaupunki, Naantali, Turku,<br>Taalintehtdas, Förby, Koverhar, Lappohja,<br>Inkoo, Kantvik, Helsinki and Sköldvik<br><b>Kristiinankaupunki, Pori, Rauma,</b><br><b>Uusikaupunki, Taalintehtdas, Förby,</b><br><b>Koverhar, Lappohja, Inkoo, Kantvik,</b><br><b>Helsinki and Sköldvik</b><br>Kaskinen, Loviisa and Mussalo<br><b>Kaskinen</b><br><b>Hanko</b><br>Kotka and Hamina<br><b>Kotka and Hamina</b> | 2000 dwt<br>2000 dwt<br><b>2000 dwt</b><br>2000 dwt<br><b>2000 dwt</b><br>2000 dwt<br><b>2000 dwt</b><br>2000 dwt<br><b>2000 dwt</b><br><b>2000 dwt</b><br><b>2000 dwt</b><br><b>2000 dwt</b> | IA<br>IB<br>IA<br>IB<br>IA<br>II<br>I<br>I<br>IB<br>II<br>I<br>IB | 27.01.<br>23.01.<br><b>10.02.</b><br>03.02.<br><b>10.02.</b><br>23.01.<br><b>10.02.</b><br>03.02.<br><b>10.02.</b><br><b>10.02.</b><br>23.01.<br><b>10.02.</b> |
| <b>Russia</b>  | Vyborg<br><b>Vysotsk</b><br>Primorsk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -<br>-<br>-                                                                                                                                                                                   | Ice 1<br>Ice 1<br>Ice 1                                           | 13.02.<br><b>13.02.</b><br>28.01.                                                                                                                              |
| <b>Sweden</b>  | Karlsborg, Luleå, Haraholmen and Skelleftehamn<br>Holmsund, Rundvik, Husum and Örnsköldsvik<br>Härnösand, Söråker, Sundsvall, Stocka,                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2000 dwt<br>2000 dwt<br>2000 dwt                                                                                                                                                              | IA<br>IB<br>IC                                                    | 08.02.<br>08.02.<br>07.02.                                                                                                                                     |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                            |                                                  |                                                                                         |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|
|  | Hudiksvall, Iggesund, Söderhamn,<br>Orrskär, Norrsundet and Skutskär<br>Gävle<br>Ångermanälven<br>Öregrund, Hargshamn and Hallstavik<br><b>Öregrund, Hargshamn and Hallstavik</b><br>Lake Mälaren<br><b>Lake Mälaren</b><br><b>Kappelskär, Stockholm, Nynäshamn,<br/>Södertälje, Oxelösund, Norrköping,<br/>Västervik, Oskarshamn, Mönsterås,<br/>Kalmar, Bergkvara and Degerhamn</b><br>Lake Vänern, Tröllhätte canal and Göta<br>alv | 2000/4000 dwt<br>2000 dwt<br>2000 dwt<br><b>2000 dwt</b><br>2000 dwt<br><b>2000 dwt</b><br><b>2000 dwt</b> | IC/II<br>IB<br>II<br><b>IC</b><br>IC<br>IB<br>II | 07.02.<br>06.02.<br>07.02.<br><b>14.02.</b><br>04.02.<br><b>14.02.</b><br><b>14.02.</b> |
|  |                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1300/2000 dwt                                                                                              | IB/IC                                            | 06.02.                                                                                  |

### Information of the Icebreaker Services

#### Estonia

**Icebreaker:** EVA-316 assists in the port of Pärnu. **BOTNICA** assist in the ports of Kund and Sillamae.

#### Finland

Vessels bound for Gulf of Bothnia ports in which assistance restrictions apply, shall when passing latitude 60°00' N report their nationality, name, port of 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 a Finnish or Swedish ports in the Quark or in the Bay of Bothnia shall report to Bothnia VTS 20 nautical miles before Nordvalen Lighthouse (63° 32.15' N 20° 46.60' E) on VHF channel 67.

The traffic separation scheme in the Quark is temporarily out of use due to ice conditions.

Ice breaking season has ended in Lake Saimaa and Saimaa Canal. The Saimaa Canal is closed for traffic on 8.2.2021.

**Icebreaker:** OTSO, POLARIS and KONTIO assist in the Bay of Bothnia. SISU assists in the Quark and in the southern Bay of Bothnia. ZEUS assists in the Quark. VOIMA assists in the eastern Gulf of Finland.

#### Norway

Tønsberg inner harbour (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (25.01.21)

Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (25.01.21)

**Nærøyfjorden: Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (09.02.21)**

#### Russia

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

From 25<sup>th</sup> of January tow boat-barges will not be assisted to Vyborg. Vessels without ice class may navigate with icebreaker assistance only.

From 25<sup>th</sup> of January tow boat-barges will not be assisted to Vysotsk. Vessels without ice class may navigate with icebreaker assistance only.

From 28<sup>th</sup> of January tow boat-barges will not be assisted to Primorsk. Vessels without ice class may navigate with icebreaker assistance only.

From 13<sup>th</sup> of February tow boat-barges will not be assisted to St. Petersburg.

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

#### Sweden

The transit traffic west of Holmöarna is temporarily prohibited.

**Icebreaker:** ATLE, ODEN and FREJ assist in the Bay of Bothnia. YMER assists in the Quark. BALICA assist in the southern Sea of Bothnia. ALE and SCANDICA assist in the Lake Vänern.

### Schlüssel für die Meldungen der Eis- und Schifffahrtsverhältnisse

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Erste Zahl:</b></p> <p><b>A<sub>B</sub> Menge und Anordnung des Meereises</b></p> <p>0 Eisfrei<br/>1 Offenes Wasser – Bedeckungsgrad kleiner 1/10<br/>2 Sehr lockeres Eis – Bedeckungsgrad 1/10 bis 3/10<br/>3 Lockeres Eis – Bedeckungsgrad 4/10 bis 6/10<br/>4 Dichtes Eis – Bedeckungsgrad 7/10 bis 8/10<br/>5 Sehr dichtes Eis – Bedeckungsgrad 9/10 bis 9+/10<br/>6 Zusammengeschobenes oder zusammenhängendes Eis – Bedeckungsgrad 10/10<br/>7 Eis außerhalb der Festeiskante<br/>8 Festeis<br/>9 Rinne in sehr dichtem oder zusammengeschobenem Eis oder entlang der Festeiskante<br/>/ Außerstande zu melden</p> <p><b>Dritte Zahl:</b></p> <p><b>T<sub>B</sub> Topographie oder Form des Eises</b></p> <p>0 Pfannkucheneis, Eisbruchstücke, Trümmerreis – Durchmesser unter 20 m<br/>1 Kleine Eisschollen – Durchmesser 20 bis 100 m<br/>2 Mittelgroße Eisschollen – Durchmesser 100 bis 500 m<br/>3 Große Eisschollen – Durchmesser 500 bis 2000 m<br/>4 Sehr große oder riesig große Eisschollen – Durchmesser über 2000 m oder ebenes Eis<br/>5 Übereinandergeschobenes Eis<br/>6 Kompakter Schneebrei od. kompakte Eisbreiklumpchen oder kompaktes Trümmerreis<br/>7 Aufgepresstes Eis (in Form von Hügeln oder Wällen)<br/>8 Schmelzwasserlöcher oder viele Pfützen auf dem Eis<br/>9 Morsches Eis<br/>/ Keine Information oder außerstande zu melden</p> | <p><b>Zweite Zahl:</b></p> <p><b>S<sub>B</sub> Entwicklungszustand des Eises</b></p> <p>0 Neueis oder dunkler Nilas (weniger als 5 cm dick)<br/>1 Heller Nilas(5 bis 10 cm dick) oder Eishaut<br/>2 Graues Eis(10 bis 15 cm dick)<br/>3 Grauweißes Eis(15 bis 30 cm dick)<br/>4 Weißes Eis, 1. Stadium(30 bis 50 cm dick)<br/>5 Weißes Eis, 2. Stadium(50 bis 70 cm dick)<br/>6 Mitteldickes erstjähriges Eis(70 bis 120 cm dick)<br/>7 Eis, das überwiegend dünner als 15 cm ist, mit etwas dickerem Eis<br/>8 Eis, das überwiegend 15 bis 30 cm dick ist, mit etwas dickerem Eis<br/>9 Eis, überwiegend dicker als 30 cm, mit etwas dünnerem Eis<br/>/ Keine Information oder außerstande zu melden</p> <p><b>Vierte Zahl:</b></p> <p><b>K<sub>B</sub> Schifffahrtsverhältnisse im Eis</b></p> <p>0 Schiffahrt unbehindert<br/>1 Für Holzschiffe ohne Eisschutz schwierig oder gefährlich.<br/>2 Schiffahrt für nichteisverstärkte Schiffe oder für Stahl-schiffe mit niedriger Maschinenleistung schwierig, für Holzschiffe sogar mit Eisschutz nicht ratsam.<br/>3 Ohne Eisbrecherhilfe nur für stark gebaute und für die Eisfahrt geeignete Schiffe mit hoher Maschinenleistung möglich.<br/>4 Schiffahrt verläuft in einer Rinne oder in einem aufgebrochenen Fahrwasser ohne Eisbrecherunterstützung.<br/>5 Eisbrecherunterstützung kann nur für die Eisfahrt geeigneten Schiffen von bestimmter Größe (tdw) gegeben werden.<br/>6 Eisbrecherunterstützung kann nur für die Eisfahrt verstärkten Schiffen von bestimmter Größe (tdw) gegeben werden.<br/>7 Eisbrecherunterstützung nur nach Sondergenehmigung<br/>8 Schiffahrt vorübergehend eingestellt.<br/>9 Schiffahrt hat aufgehört.<br/>/ Unbekannt</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Deutschland, 09.02.2021

|                               |      |
|-------------------------------|------|
| Karnin, Stettiner Haff        | 5133 |
| Karnin, Peenestrom            | 5133 |
| Anklam, Hafen – Peenestrom    | 6143 |
| Rankwitz, Peenestrom          | 6041 |
| Wolgast – Peenemünde          | 5142 |
| Zingst, Seegebiet             | 1000 |
| Wismar, Hafen                 | 1000 |
| Neustadt, Hafen               | 1000 |
| Heiligenhafen, Hafen          | 1000 |
| Schlei, Schleswig – Kappeln   | 3121 |
| Ellenbogen (Sylt), Listertief | 3221 |
| Sylt, Hafen List              | 2111 |
| Wyk auf Föhr, Hafen           | 2000 |
| Wyk auf Föhr, Norderaue       | 1000 |
| Amrum, Hafen Wittdün          | 2000 |
| Tönning, Hafen                | 4232 |
| Eiderdamm, Seegebiet          | 1000 |
| Stadersand, Elbe              | 3000 |

#### Estland, 09.02.2021

|                                   |      |
|-----------------------------------|------|
| Narva-Jõesuu, Fahrwasser          | 5235 |
| Kunda, Hafen und Bucht            | 4125 |
| Länge Kunda – Tallinn, Fahrwasser | 3000 |
| Muuga, Hafen und Bucht            | 1/0  |
| Tallinn, Hafen und Bucht          | 1/0  |
| Pärnu, Hafen und Bucht            | 7345 |
| Pärnu – Irbenstraße, Fahrwasser   | 5222 |
| Irbenstraße                       | 3001 |
| Moonsund                          | 7232 |

#### Finnland, 09.02.2021

|                                          |      |
|------------------------------------------|------|
| Röyttä – Etukari                         | 8446 |
| Etukari – Ristinmatala                   | 8446 |
| Ajos – Ristinmatala                      | 8946 |
| Ristinmatala – Kemi 2                    | 4146 |
| Kemi 2 – Kemi 1                          | 4146 |
| Kemi 1, Seegebiet im SW                  | 4146 |
| Kemi 2 – Ulkokrunni – Virpiniemi         | 7846 |
| Oulu, Hafen – Kattilankalla              | 8446 |
| Kattilankalla – Oulu 1                   | 5346 |
| Oulu 1, Seegebiet im SW                  | 5246 |
| Offene See N-lich Breite Marjaniemi      | 3106 |
| Raahe, Hafen – Heikinkari                | 8346 |
| Heikinkari – Raahe Leuchtturm            | 5246 |
| Raahe Leuchtturm – Nahkiainen            | 4746 |
| Breitengrad Marjaniemi – Ulkokalla, See  | 4246 |
| Rahja, Hafen – Välimatala                | 8346 |
| Välimatala bis Linie Ulkokalla – Ykskivi | 5246 |
| Breitengrad Ulkokalla – Pietarsaari, See | 1206 |
| Ykskivi – Repskär                        | 8346 |
| Repskär – Kokkola Leuchtturm             | 5746 |
| Kokkola Leuchtturm, See außerhalb        | 3006 |
| Pietarsaari – Kallan                     | 7746 |
| Kallan, Seegebiet außerhalb              | 4146 |
| Breite Pietarsaari – Nordvalen im NE     | 4746 |
| Nordvalen, Seegebiet im ENE              | 5146 |
| Nordvalen – Norrskär, See im W           | 5146 |
| Vaskiluoto – Ensten                      | 7346 |
| Ensten – Vaasa Leuchtturm                | 5746 |
| Vaasa Leuchtturm – Norrskär              | 4346 |

|                                        |      |                                          |      |
|----------------------------------------|------|------------------------------------------|------|
| Norrskär, Seegebiet im SW              | 4346 | <b>Norwegen, 09.02.2021</b>              |      |
| Kaskinen – Sälgrund                    | 5246 | Svincesund – Halden                      | 32// |
| Sälgrund, Seegebiet außerhalb          | 3006 | Mossesund                                | 6231 |
| Pori – Linie Pori Leuchtturm – Säppi   | 3005 | Drammensfjord                            | 6314 |
| Rauma, Hafen – Kylmäpihlaja            | 7745 | Breiangen (N von Horten)                 | 2214 |
| Kylmäpihlaja – Rauma Leuchtturm        | 4045 | Tønsberg, Innenhafen                     | 8235 |
| Uusikaupunki, Hafen – Kirsta           | 8745 | Vestfjord (Tønsberg)                     | 8235 |
| Kirsta – Isokari                       | 4045 | Jomfrulandrinne                          | 1/// |
| Isokari – Sandbäck                     | 3005 | Jomfruland, außerhalb                    | 1/// |
| Naantali und Turku – Rajakari          | 5745 | Skåtøysund (Kragerø)                     | 8234 |
| Rajakari – Lövskär                     | 4045 | Langårsund (Kragerø)                     | 8234 |
| Lövskär – Korra                        | 4041 | Kragerøfjord                             | 1010 |
| Korra – Isokari                        | 3001 | Tromøysund (Arendal)                     | 10// |
| Lövskär – Berghamn                     | 2000 | Galtesund (Arendal)                      | 1/// |
| Stora Sottunga – Ledskär               | 4041 |                                          |      |
| Rödhamn, Seegebiet                     | 3001 | <b>Polen, 09.02.2021</b>                 |      |
| Lövskär – Grisselborg                  | 3001 | Gdansk, Hafen                            | 2111 |
| Hanko, Hafen – Hanko 1                 | 3001 | Ustka, Hafen                             | 3111 |
| Hanko 1, See im S                      | 2000 | Kolobrzeg, Hafen                         | 1000 |
| Hanko – Vitgrund                       | 4141 | Zalew Szczecinski                        | 5332 |
| Koverhar – Hästö Busö                  | 5245 | Szczecin, Hafen                          | 5011 |
| Hästö Busö – Ajax                      | 3105 | Swinoujscie – Szczecin                   | 5212 |
| Ajax, See im S                         | 3005 | Swinoujscie, Hafen                       | 3101 |
| Inkoo u. Kantvik – Porkkala See        | 5245 |                                          |      |
| Porkkala, Seegebiet                    | 4145 | <b>Russische Föderation, 09.02.2021</b>  |      |
| Porkkala Leuchtturm, See im S          | 3005 | St. Petersburg, Hafen                    | 83/5 |
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