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Isforholdene i de danske Farvande i Vinteren 1916—1917.

Bearbejdet af Kaptajn C. I. H. SPEERSCHNEIDER.

Oplysningerne om Isforholdene i den forløbne Vinter er indsamlede og bearbejdede paa lignende Maade som tidligere.

Tabel 1 viser Middeltemperaturen og Afgigelserne fra Normalen paa 7 Steder i Landet. Det fremgaar af Tabellen, at Afgigelsen var positiv i December, men negativ i Januar, Februar og Marts.

December 1916. Middellufttrykket *) var ved Skagen 753,8 mm, Kjøbenhavn 753,9 mm, eller henholdsvis 4,6 og 5,9 mm lavere end normalt. Vindretningen var overvejende omkring Sydost. Middeltemperaturen blev de fleste Steder c. $1 - 1\frac{1}{2}$ ° højere end normalt. Paa Fyrskibene, hvor Thermometret aflæses 6 Gange i Døgnet, var den laveste Temperatur $\div 2,5$ (Lappe-Grund).

Januar 1917. Middellufttrykket var ved Skagen 762,6 mm, i Kjøbenhavn 761,2 mm, eller henholdsvis 2,0 mm højere og 0,9 mm lavere end normalt. Vindretningen var usædvanlig hyppigt nordøstlig og østlig. Middeltemperaturen blev i Jylland fra $1\frac{1}{2} - 3$ ° og paa Øerne fra $\frac{1}{2} - 1\frac{1}{2}$ ° lavere end normalt. Paa Fyrskibene var den laveste Temperatur $\div 8,7$ (Lappe-Grund).

Februar. Middellufttrykket var ved Skagen 763,9 mm, i Kjøbenhavn 765,1 mm, eller henholdsvis 3,8 og 4,0 mm lavere end normalt. Vindretningen var overvejende omkring Sydvest og Vest. Middeltemperaturen blev i Jylland fra $\frac{1}{2} - 2$ ° og paa Øerne $2 - 2\frac{1}{2}$ ° lavere

*) reduceret til 0° C., Havets Overflade og Tyngden ved 45° Br.

The state of the ice in Danish waters during the winter 1916—1917.

Prepared by Commander C. I. H. SPEERSCHNEIDER.

The information concerning the state of the ice during the past winter has been gathered in a similar manner as formerly.

Table 1 shows the mean temperatures of the air and the variations from the normal state at 7 different stations. It will be seen that the variations were positive during December but negative in January, February and March.

December 1916. The mean pressure of the air* at the Scaw was 753.8 mm, and in Copenhagen 753.9 mm or respectively 4.6 and 5.9 mm below the normal. The predominant direction of the wind was about south east. At most of the stations the mean temperature was about 1 to $1\frac{1}{2}$ ° above the normal. On the lightships, where the thermometer is read 6 times in the 24 hours, the lowest temperature recorded was $\div 2.5$ ° (Lappe-Grund).

January 1917. The mean pressure of the air at the Scaw was 762.6 mm, and in Copenhagen 761.2 mm or respectively 20 mm above and 0.9° mm below the normal. The direction of the wind was very often northeasterly and easterly. The mean temperature in Jutland was $1\frac{1}{2}$ to 3° and on the islands $\frac{1}{2}$ to $1\frac{1}{2}$ ° below the normal. On the lightships the lowest temperature recorded was $\div 8.7$ ° (Lappe-Grund).

February. The mean pressure of the air at the Scaw was 763.9 mm and in Copenhagen 765.1 mm or respectively 3.8 and 4.0 mm above the normal. The prevailing winds were southwest and west. The mean temperature in Jutland was $\frac{1}{2}$ to 2° and on the islands

*) reduced to 0°, to the level of the sea and to the gravitude at latitude 45°.

end normalt. Fyrskibene var inddragne, saaledes at laveste Temperatur ikke er observeret.

Marts. Middellufttrykket var ved Skagen 758,5 mm, i Kjøbenhavn 758,4 mm, eller henholdsvis 0,3 og 0,7 mm lavere end normalt. Vindretningen var overvejende omkring Øst. Middeltemperaturen blev de fleste Steder mellem $2\frac{1}{2}$ og $3\frac{1}{2}^{\circ}$ lavere end normalt. Fyrskibene var inddragne, saaledes at laveste Temperatur ikke er observeret.

Tabel 2 viser de Frostperioder og Frostdage, som indtraf i Løbet af Vinteren. Efter nogle enkelte Frostdage i November og December faldt der fire Frostperioder i Januar, Februar og Marts. Den første Frostperiode var den langvarigste og haardeste, den varede c. 30 Dage i den nordlige Del af Landet og fra 20—28 Dage i den sydlige Del. Den begyndte c. 10de Januar, medens Isen tidligst viste sig omkring den 24de Januar i det nordligste Kattegat, det Sted i Hovedfarvandene hvor Isdannelsen først begyndte, og den afsluttedes omkring den 8de Februar paa et Tidspunkt, hvor Isforholdene var særdeles haarde.

De følgende 3 Frostperioder var langtsaa langvarige, 2den og 4de Periode varede hver c. 1 Uge, medens 3die Frostperiode dog varede et Par Uger.

Af Stationerne i Tabel 2 havde Randers den største Kuldesum (235,5), Samsø den mindste (131,4).

Tabel 3 a viser Vandets Overfladetemperatur og Saltholdighed i Løbet af Vinteren. Middeltal er anførte for hvert Tidøgn, dog er Observationerne for Fyrskibene ikke fuldstændige. Vandets Temperatur var næsten overalt lavest fra 21de Januar til 10de Februar, ved Lappegrunden var Temperaturen lavest i første Tidøgn af Marts og ved Christiansø var Temperaturen hele Vinteren positiv, men lavest, ($0,1^{\circ}$), i sidste Tidøgn af Marts.

Saltholdigheden var gennemgaaende ligesom Temperaturen lavest i Slutningen af Januar og i Begyndelsen af Februar.

Tabel 3 b viser Overfladetemperaturen ved Fyrskibene i de Dage Isen dannedes.

2 to $2\frac{1}{2}^{\circ}$ below the normal. The lowest temperature on the lightships was not recorded as they were all withdrawn.

March. The mean pressure of the air at the Scaw was 758.5 mm, and in Copenhagen 758.4 mm or respectively 0.3 and 0.7 mm below the normal. Easterly winds were predominant. At most of the stations the mean temperature was $2\frac{1}{2}$ to $3\frac{1}{2}^{\circ}$ below the normal. The lowest temperature on the lightships was not recorded, as they were all withdrawn.

Tabel 2 gives the occurence of periods with frost and frosty days during the winter. After only a few frosty days during November and December the four cold periods of the winter occurred in January, February and March. The first frosty period was the longest and coldest, lasting for about 30 days in the northern part of the country and for 20 to 28 days in the southern part. The frost commenced on January 10 while it was not until about January 24 that the first ice was observed in the northmost part of the Kattegat, this being the locality of the main waters where the formation of ice usually begins. When the period came to a close, about February 8, the conditions of the ice were very difficult.

The 3 frosty periods which followed were by far not so long as the first; thus the 2nd and 4th period only lasted 1 week each while the 3rd lasted about 2 weeks.

Of all the stations mentioned in Table 2 Randers had the greatest amount of cold (235.5), Samsø the smallest (131.4).

Tabel 3 a gives a general view of the temperature and salinity of the surface water during the winter, the mean values are quoted for each decade, but this year the observations on the lightships have not been complete. At almost all the stations the temperature of the water was lowest from January 21 to February 10; at Lappe-Grund the water was coldest during the first decade of March, and at Christiansø the lowest temperature (0.1°) was recorded during the last decade of March.

Like the temperature the salinity was generally lowest during the end of January and the beginning of February.

Table 3 b gives the temperature of the surface water at the lightships during the days when the ice was forming.

I Tabel 4 er opført Resultaterne af de rundt om ved Kysterne o. fl. Steder anstillede daglige Iagttagelser over Isforholdene og disses Indflydelse paa Besejlingsforholdene. Naar en i Tabel 5 anført Lokalitet er udeladt i Tabel 4 i en eller flere Maaneder, har der ingen Is været paa det paagældende Sted. I Tabel 5 er alle de Steder anført, hvorfra der anstilles Observationer.

For at hjælpe til en ensartet Bedømmelse er Isforholdeন udtrykt ved Bogstaver, som har følgende Betydning :

Isfrit	A	Svær Driv-Is	F
Løs Sjap- og Kvadder-Is	B	Pak-Is	I
Sammenpakket Sjap- og		Skrue-Is	H
Kvadder-Is.....	E	Tynd Fast-Is	D
Spredt Driv-Is	C	Svær Fast-Is.....	G
Driv-Is	K		

Til nærmere Forklaring paa disse Benævnelser tjener følgende Beskrivelse:

- B. *Sjap-Is* kaldes den Masse, der dannes af Sne og Vand eller af smaa Ispartikler, saalænge den ikke er frosset sammen endnu. *Kvadder-Is* kaldes de smaa, i Reglen afrundede Isflader eller Isklumper, som kan optræde for sig, førte sammen af Vind og Sø, men som hyppig træffes i Forbindelse med *Sjap-Is*.
- E. *Sammenpakket Sjap- og Kvadder-Is* er *Sjap-Is* eller *Kvadder-Is* eller begge Dele i Forening, som paa Grund af Kuling eller Strøm, eller mulig Hindring for Isens Bevægelse, er pakket sammen i en grød-lignende Masse af antagelig Tykkelse.
- C. *Spredt Driv-Is*. Isflager eller Iskodser, som med større Mellemrum er spredte over Farvandet, og som er i Drift.
- K. *Driv-Is*. Isflager eller Iskodser i mere samlede Masser, som er i Drift.
- F. *Svær-Driv-Is*. Svære Isflager eller Iskodser i samlede Masser, som er i Drift.
- I. *Pak-Is*. Svære Iskodser, som af Kuling eller Strøm, eller, hvad oftest er Tilfældet, paa Grund af Indsnævring af Farvandet, er pakkede sammen til en svær tæt Masse.
- H. *Skrue-Is*. Is, som skruer.
- D. *Tynd Fast-Is*. En sammenfrosset, landfast Isflade af mindre Styrke.

Table 4 contains the results of the daily observations at the various stations concerning the state of the ice and its influence on the navigation. The non-appearance in table 4 for one month or more at one of the stations mentioned in table 5 means, that no ice has been observed at that station during the time in question. Table 5 gives the names of all the stations, at which observations are taken.

In order to further uniformity of judgement, the state of the ice is indicated by letters having the following signification.

Free of ice	A	Heavy drift ice	F
Brash and pancake ice	B	Pack.....	I
Packed brash and pan-		Screw ice	H
cake ice	E	Thin fixed ice	D
Open ice.....	C	Heavy fixed ice	G
Drift ice.....	K		

The following description gives a more precise explanation of the above designations:

- B. *Brash ice* is a mass consisting of snow and water or of very small pieces of ice not yet frozen together. *Pancake ice* consists of small, generally round ice flakes or ice lumps. It may appear alone, brought together by the wind or the sea, but it often appears in connection with *brash ice*.
- E. *Packed brash and pancake ice* is brash ice or pancake ice or both at the same time, which has been packed together in a turbid mass of considerable thickness either by the wind or the current or by some obstruction to the free drift of the ice.
- C. *Open ice* is drifting ice flakes or hummock ice scattered over the water at greater intervals.
- K. *Drift ice* is drifting ice flakes or hummock ice in more collected masses.
- F. *Heavy drift ice* is drifting heavy ice floes or hummock ice in close masses.
- I. *Pack* means heavy ice floes, which have been packed together in heavy dense masses either by the wind, or the current or — as is generally the case — by a narrowing of the waters.
- H. *Screw ice* means ice that is screwing or nipping.
- D. *Thin fixed ice* means thin land ice.

G. *Svær Fast-Is.* En sammenfrosset, landfast Isflade af betydelig Styrke.

Besejlingsforholdene er udtrykt ved Bogstaver, som har følgende Betydning:

Skibsfarten uhindret N
 » vansklig for Sejlskibe O
 » vansklig; for Sejlskibe kun mulig med Bugserhjælp P

Skibsfarten lukket for Sejlskibe Q
 » kun mulig for kraftige Dampere. R
 » kun mulig med Isbryderhjælp. S
 » helt lukket T

Rende holdes aaben med Isbryder U

Tabel 5 er Sammendrag af Tabel 4, men er tillige Fortegnelse over alle Observationsstederne. For hvert Sted er anført, hvormange Dage der har været Is af de forskellige Arter, og hvormange Dage Skibs-farten har været paavirket deraf. Endvidere findes Rubrikker for det samlede Dageantal med Is samt for Tiderne for første og sidste Ismelding. Det maa dog erindres, at Stedet i Mellemtiden godt kan have været isfrit selv i længere Tid.

I sidste Rubrik er der for enkelte Pladser anført den største Tykkelse i cm, som Isen har naaet.

Oversigt over Isforholdene i de forskellige Farvande.

De medfølgende 8 Kort viser Isforholdene paa 8 enkelte Dage i den første Isperiode. De forskellige Arter af Is er betegnede med forskellig Signatur, som anført paa Kortene.

Midt i Januar begyndte Isdannelsen i de indre Farvande, og den 25de Januar, da Overfladens Temperatur i det nordlige Kattegat var omkring 1° , etableredes Ismeldingstjenesten. Der var allerede da megen Is omkring Skagen.

Isdannelsen i Hovedfarvandene begyndte saaledes i Vinter i det nordligste Kattegat, hvor Kulden var

G. *Heavy fixed ice* means heavy land ice.

The conditions for navigation are indicated by letters having the following signification.

Navigation unimpeded N
 » difficult for sailing vessels O
 » difficult, impossible for sailing vessels without tug-boat..... P

Navigation closed for sailing vessels..... Q
 » only possible for powerful steamers R
 » impossible without the assistance of icebreaker S
 » quite closed..... T
 Channel kept open by means of ice breaker U

Table 5 is a summary of Table 4 but also a list of all the stations. For each station is put down the number of days with ice of the various descriptions and the number of days, on which navigation has been affected by the ice. Further rubrics will be found giving the total number of days with ice, and the dates of the first and the last report of ice. However, it must be noted, that in the interval the station may very well have been free of ice, even for a longer period.

In the last column is given — for some of the stations — the greatest thickness in cm, which the ice has attained.

Summary of the state of the ice in the various waters.

The accompanying 8 charts are showing the state of the ice on 8 different days during the first frosty period, the signatures indicating the various kinds of ice will be found printed in the charts.

In the middle of January the ice commenced to form in the inner waters, and on January 25, when the surface temperature in the northern Kattegat was about $\div 1^{\circ}$, the ice signal service was established. By that time there was already a great deal of ice around the Scaw.

Of the main waters it was thus during this winter the northmost part of the Kattegat which had the

haardest, og bredte sig i de nærmeste Dage Syd efter, medens Bælthavet stadig var isfrit.

Fra den 29de Januar (se Kortet) var Kattegat og Sundet isfyldt; medens Bælterne endnu var isfri. Saaledes var Isforholdene indtil den 3die Februar, da Isen begyndte at aftage i Kattegat, medens Isen samtidig begyndte at optræde i Bælterne. Allerede d. 5te Februar var Isen her ret svær og tiltog i de følgende Dage, saaledes at den 9de Februar maa anses for at have haft de haardeste Isforhold i Bælterne, hvor Skibsfarten flere Steder var ganske standset af Isen. Fra d. 10de aftog Isen, og Kattegat var samtidig nærmest isfrit.

Under de haardeste Isforhold fra den 5te—10de Februar, og særlig fra 7de til 10de, var Femerbælt islagt med kun enkelte Vaager hist og her. Indtil 2 Sømil udfra Kysten var Isen saa svær, at man kunde gaa paa den. Der var i de Dage ingen Skibsfart. Senere skruede Isen, saaledes at en Damper, der d. 10de kom Øst fra, mødte saa svære Ishindringer midt i Bæltet, at den styrede Syd over.

Den 14de Februar (se Kortet) drev vestlig Vind Isen mod Farvandenes østlige Side, saaledes at der i nogle Dage kun af og til var Hindringer for Gennemsejlingen, men d. 20de Februar begyndte after nogen Isdannelse i Bælterne, indtil Nordenvande d. 24de drev Isen bort.

Den 7de Marts lagde Sundet og Store Bælt after til, d. 11te Marts var der endog Nyisdannelse i Kattegat og i hele Bælthavet. Fra d. 13de var dog Kattegat after isfrit, men først d. 16de Marts aftog Isen i Sund og Bælter. Der fandtes nu af og til spredt Drivis hist og her, mest i Sundet, men den 26de Marts var alle Hovedfarvande isfri.

Østersøen fra Bornholm til Møen var isfri hele Vinteren. De første Dage af Februar var der lidt Sjapis langs Østkysten af Bornholm; fra 14de til 27de Marts optraadte lidt spredt Drivis omkring Øen.

coldest weather and where the formation of ice first commenced. During the following days the ice spread out towards the south in the Kattegat, but the Belts still continued to be free of ice.

From January 29 (see the chart) the Kattegat and the Sound were filled with ice, while the Belts were still free of ice. This state of the ice continued until February 3, when the ice in the Kattegat commenced to decrease, while at the same time ice commenced to appear in the Belts. On February 5 the ice in the Belts had attained a considerable thickness which increased during the following days, so that February 9 may be considered the day on which the state of the ice in the Belts was most difficult, the navigation being closed at several places. From the 10th the ice grew thinner and the Kattegat became almost free of ice.

From the 5th to the 10th of February the Femerbelt was completely covered with ice except for a few openings here and there. Up to 2 miles off the coast the ice was thick enough to carry a man, and all navigation had stopped. Later on the ice commenced to nip and on the 10th a steamer was observed coming from the east but she met with so difficult conditions that she turned about working her way towards the south.

On Februar 14 (see the chart) westerly wind drove the ice towards the eastern side of the fairways leaving the passage rather unimpeded, but on the 20th the formation of the ice again commenced in the Belts and continued until the 24th when north current drove all the ice away.

On March 7 the Sound and the Great Belt froze up, and on the 11th young ice was formed in the Kattegat and all over the Belts. From the 13th, however, the Kattegat was free of ice while it was not until the 16th that the ice in the Sound and the Belts commenced to disappear. After the 16th some scattered drift ice was observed here and there especially in the Sound, but on the 26th all the main fairways were free of ice.

The Baltic from Bornholm to Møen was free of ice throughout the winter. During the first days of February there was a little brash along the eastcoast of Bornholm, and between the 14th and the 27th of March some scattered drift ice was observed arround the island.

Fra de indre Farvande gik den sidste Is midt i April.

Jyllands Vestkyst var isfri hele Vinteren, kun i nogle Dage, fra 28. Januar til 2. Februar, gik Drivis forbi Skagen helt ud til Skagbanken. Der var Drivis i Graadyb i 8 Uger og i Ringkjøbing Fjord i 13 Uger.

I Limfjorden begyndte Isen allerede 10de Januar og den sidste Is gik først d. 13de April. Bugter og Bredninger havde Is fra 11—13 Uger, de mere aabne Løb fra 9—11 Uger. Skibsfarten var ganske standset fra Nissum Bredning til Aalborg i 3 Uger og enkelte Steder i over 2 Maaneder. Fra Aalborg til Hals var Skibsfarten flere Dage kun mulig med Isbryderhjælp.

I Kattegat begyndte Isdannelsen i Slutningen af Januar, hvorefter hele Farvandet var islagt til ca. 10de Februar. Lidt Is fandtes atter i det aabne Farvand omkring Midten af Marts.

Fjordene havde Is i 10 à 11 Uger, Mariager Fjord dog i c. 13 Uger. Af Havnene havde Skagen, Frederikshavn, Anholt og Aarhus Havne Is i c. 4 Uger; Grenaa Havn derimod kun i 4 Dage.

I Sundet begyndte Isen de sidste Dage af Januar og her blev atter isfrit de sidste Dage af Februar. Særlig haarde var Forholdene udfør Kjøbenhavn og i Drogden i første Halvdel af Februar, og Skibsfarten kunde kun føres igennem med Isbryderhjælp. Isen var flere Steder presset sammen i mægtige Skruninger. I den anden Isperiode var der Is i Sundet fra c. 4de til 25de Marts, og ogsaa i denne Periode var Isforholdene meget haarde og kun mulig med Isbryderhjælp i Farvandet udfør Kjøbenhavn. Af Havnene havde Helsingør og Kjøbenhavn Is i 7, og Kjøge i 8 Uger.

Store Bælt. I selve Farvandet begyndte Isdannelsen de første Dage i Februar, og Isen fandtes i Bæltet i c. 3 Uger. De haardeste Isforhold fandtes omkring den 9de Februar, paa hvilken Dag Skibsfarten endog var helt lukket udfør Omø og flere andre Steder kun mulig med Isbryderhjælp. I en halv Snes Dage midt i Marts var der atter Is i Store Bælt, men Isforholdene var langt fra saa haarde som i den første

From the inner waters the last ice disappeared about the middle of April.

The West coast of Jutland was free of ice throughout the winter except for the days between January 28 and February 2 when some ice drifted past the Scaw and reached out to the Scaw Bank. In Graadyb there was drift ice for 8 weeks and in Ringkjøbing Fjord for 13 weeks.

In Limfjorden the ice appeared on January 10 and remained till April 13. On the bights and ex. pances the ice was lying for 11 to 13 weeks, in the more open passages from 9 to 11 weeks. From Nissum Bredning to Aalborg the navigation was stopped for 3 weeks and in some localities even for 2 months. For some days the navigation from Aalborg to Hals was only possible with the assistance of icebreakers.

In the Kattegat the first ice was formed about the end of January whereupon the whole Kattegat was covered with ice until February 10. By the middle of March some ice was observed in the open sea.

The fiords had ice for 10 to 11 weeks, only Mariager Fjord for about 13 weeks. The harbours of the Scaw, Frederikshavn, Anholt and Aarhus had ice for about 4 weeks, and Grenaa for 4 days.

In the Sound the ice commenced to appear during the last days of January and remained till the end of February. Off Copenhagen and in the Drogden the conditions were particularly difficult and navigation was only possible with the assistance of ice-breakers. In some places the ice had packed and formed mighty »screwings«. During the second period with ice there was ice in the Sound from the 4th to the 25th of March, and also in this period the conditions of the ice were very difficult and navigation off Copenhagen was impossible without assistance of ice-breaker. The harbours of Copenhagen and Helsingør had ice for 7 weeks and Kjøge for 8 weeks.

The Great Belt. The ice commenced to appear during the first days of February and remained in the Belt for about 3 weeks. The most difficult conditions of the ice occurred about February 9 on which day the navigation was stopped off Omø, and at several other places it was only possible with the assistance of icebreaker. During the middle of March there was again ice in the Belt for about 10 days

Isperiode. Nakskov Fjord havde Is i c. 10 Uger, de andre Havn og Fjorde i 2 à 3 Uger.

Lille Bælt havde Is fra 1ste Februar. I den nordlige Del holdt Isen sig i et Par Uger, i den sydlige Del — udfør Assens og Skjoldnæs — i 3 Uger. Isforholdene var haardest udfør Assens, hvor Skibsfarten var helt lukket den 9de og 10de Februar. Ogsaa midt i Marts var der Is i Lille Bælt i nogle Dage særlig udfør Assens og Skjoldnæs, hvor der var Is i en halv Snæs Dage. Vejle- og Kolding Fjord havde Is i henholdsvis 10 og 11 Uger.

Østersøen. I Femer Bælt og ved Gjedser var der Is i de første 3 Uger af Februar. Isforholdene var meget haarde udfør Rødby i 13 Dage og udfør Gjedser i 5 Dage. Midt i Marts fandtes atter Is i et Par Uger.

Den vestlige Del af den egentlige Østersø fra Møen til Bornholm var isfri hele Vinteren. Rødby Havn havde Is i 6 Uger, Nysted Bredning og Præstø Fjord i 10 à 11 Uger.

Bornholm. Noget Drivis fandtes udfør Hammeren fra den 14de—19de og 23de—27de Marts. Af Havnene havde Rønne og Neksø Is i 4 Uger.

De indre Farvande. I Isefjorden og dens Forgreninger begyndte Isen midt i Januar; i hele Februar og Marts var Fjorden ganske tillagt, og al Skibsfart var standset, først den 10de April var her helt isfrit. Fjordene havde Is i 11 à 12 Uger.

I Smaalandsfarvandet lagde Havn og indre Farvande til midt i Januar. Bøgestrømmen var allerede helt lukket den 27de Januar og Omø Sund fra 5te—15de Februar. Først den 8de April aabnedes Sejladsen i Bøgestrømmen, hvor der var helt isfrit den 11te April. I selve Smaalandsfarvandet laa Isen fra den 3die Februar, først den 27de Februar begyndte der at blive aabent hist og her, og den 5te Marts var her isfrit. I den anden Isperiode laa Isen fra den 7de Marts til lidt over Midten af Maaneden. Havnene havde Is i 9 à 10 Uger.

I Farvandene mellem Øerne Syd for Fyn begyndte Havnene og Marstal Bredning at faa Is c. 21de Januar. I Februar var her Is overalt mellem Øerne

but the conditions were by far not so difficult as during the first period. Nakskov Fjord had ice for about 10 weeks, the other fiords and harbours for 2 to 3 weeks.

The Little Belt. The ice appeared on February 1 and remained for about 2 weeks in the northern part of the Belt and for 3 weeks in the southern part — off Assens and Skjoldnæs —, where the conditions also were worst. Off Assens the navigation was closed on the 9th and 10th of February. Also in the middle of March there was ice in the Little Belt for some days, particularly off Assens and Skjoldnæs, where the ice remained for about 10 days. Vejle Fjord and Kolding Fjord had ice respectively for 10 and 11 weeks.

The Baltic. During the first 3 weeks of February there was ice in the Femer Belt and at Gjedser. The conditions of the ice were very difficult for 13 days off Rødby and for 5 days off Gjedser. The ice reappeared for a few weeks during the middle of March.

The western part of the Baltic between Møen and Bornholm was free of ice throughout the winter. Rødby harbour had ice for 6 weeks, Nysted Bredning and Præstø Fjord for 10 to 11 weeks.

Bornholm. Some drift ice appeared off Hammeren from March 14th to 19th and 23rd to 27. The harbours of Rønne and Neksø had ice for 4 weeks.

The inner waters. Isefjord with its branches froze up by the middle of January, and all through February and March the Fjord was completely covered with ice and closed to all navigation. Not until April 10 the Fjord was free of ice, having had ice for 11 to 12 weeks.

The harbours and inner passages in Smaalandsfarvandet froze up about the middle of January. Bøgestrømmen was completely closed as early as January 27, and Omø Sund from the 5th to the 15th of February. In Bøgestrømmen the navigation was not opened until April 8 and it was not free of ice before the 11th. The Smaalandsfarvand proper was covered with ice from February 3. On the 27th some few openings commenced to appear and on March 5 the ice had disappeared. During the second period the ice was lying from March 7 to a little past the middle of the month. The harbours had ice for 9 to 10 weeks.

In the waters south of the Funen the harbours and Marstal Bredning commenced to freeze up on January 21, and all through February the waters were

Skibsfarten i Faaborg Fjord var kun mulig med Isbryderhjælp, og Nord for Skjoldnæs var Farvandet lukket fra 7de Februar og Maanedens ud. Med Undtagelse af Svendborgsund, hvor Strømmen holder Farvandet aabent, var alle Farvande isfyldt til de sidste Dage af Marts, og i Faaborg Fjord gik Isen først den 9de April. Svendborg Havn havde kun Is i 4 Uger, Rudkjøbing i 8 Uger, Faaborg og Marstal i 9 à 10 Uger.

filled with ice. In Faaborg Fjord the navigation was only possible with the assistance of icebreaker, and north of Skjoldnæs the fairway was closed from February 7 to the end of the month. Except for Svendborgsund, where the current keeps the channel open, all the waters were covered with ice until the last days of March, and in Faaborg Fjord the ice remained even till April 9. Svendborg harbour had ice for 4 weeks, Rudkjøbing for 8 weeks, Faaborg and Marstal for 9 to 10 weeks.

Helt isfri var kun Stationen Vyl Fyrskib. 76 Stationer havde Is i mere end 1 Maaned, 44 Stationer i mere end 2 Maaneder, og 2 Stationer i mere end 3 Maaneder. Det højeste Antal Dage med Is, 96, havde Skive Havn og Fjord. Den første Is viste sig den 20. Decembet (Skive Havn og Fjord), den sidste Is saas den 13. April (Thisted Bredning, Løgstør Bredning, Limfjorden udfør Løgstør og Mariager Fjord).

Isens Tykkelse blev maalt sta 65 Stationer. Største Tykkelse af Fastis, 50 cm, blev maalt i Struer Havn og Bugt. Baade i Vinteren 1908—1909 og i Vinteren 1911—1912 var største Tykkelse ogsaa 50 cm. Den gennemsnitlige Tykkelse af Isen var for Limfjorden 32 cm, for Kattegat 18 cm (Fjorde og Havne 28 cm); for Sundet 23 cm; for Store Bælt 10 cm (Fjorde 30 cm); for Lille Bælt 10 cm (Fjorde 30 cm); for Femer Bælt 8 cm; for Bornholms Havne 15 cm; for Isefjorden 31 cm; for Smaalandsfarvandet og Farvandene Syd for Fyen 20 cm. Medens Tykkelsen var omrent lige stor i Fjorde og Havne, var der Forskel paa de aabne Farvande. I Sundet og Samsøfarvandet var Isen tykkest, og iøvrigt noget tykkere Nord paa end i den sydlige Del af Hovedfarvandene.

Pakis og Skrueis blev maalt til c. 1 Meter.

Tabel 6 viser hvorlænge Fyrskibene gennemsnitlig har været inde for Is i de sidste 39 Aar; det fremgaar heraf, at Fyrskibene indenfor Skagen som Regel inddrages i 1 af 3 Vintre. Naar Fyrskibene inddrages, har de gennemsnitlig været inde i 5 à 6 Uger.

Ismeldingstjenesten, som træder i Virksomhed, naar Is begynder at optræde i Hovedfarvandene, var etab-

Of all the stations Vyl lightship was the only one without ice at all. 76 stations had ice for more than a month, 44 stations for more than 2 months and 2 stations for more than 3 months, Skive harbour and fiord had the highest number of days with ice, 96. The first ice made its appearance December 20 (Skive harbour and fiord) and the last ice was observed April 13. (Thisted Bredning, Løgstør Bredning, Limfjorden off Løgstør and Mariager fiord).

The thickness of the ice was measured at 65 stations. The greatest thickness of the firm ice, 50 cm, was measured in Struer harbour and bay. The same thickness of the ice, 50 cm, was also attained during the winters 1908—1909 and 1911—1912. The mean thickness of the ice was 32 cm in Limfjorden, 18 cm in the Kattegat (28 cm in its harbours and fiords); 23 cm in the Sound, 10 cm in the Great Belt (30 cm in the fiords), 10 cm in the Little Belt (30 cm in the fiords), 8 cm in Femer Belt, 15 cm in the harbours of Bornholm, 31 cm in Isefjorden, 20 cm in Smaalandsfarvandet and the waters south of the Funen. While the thickness of the ice was about the same in the fiords and harbours it was variable in the open waters and greatest in the Sound and Smaalandsfarvandet. Otherwise the thickness was somewhat greater in the northern than in the southern part of the main waters.

Pack and screw ice attained a thickness of about 1 m.

Tabel 6 gives a general view of the withdrawal of the light ships during the last 39 years. It will appear that the light ships inside the Scaw as a rule are withdrawn every third winter. The average duration of the withdrawal of the light ships has been 5 to 6 weeks.

The icesignal service which is carried into effect when the ice commences to appear in the main waters

leret fra 25de Januar til 27de Marts, ialt 64 Dage. Af 24 Vintre var Istjenesten etableret i 8, hvilket svarer til Is i Hovedfarvandene i 1 af 3 Vintre. I ingen af disse Vintre er Ismeldingstjenesten begyndt før den 25de Januar, og gennemsnitlig varede Istjenesten 37 Dage.

Til Sammenligning mellem denne Vinter og de 10 foregaaende tjener Tabel 7, hvor Tallene angiver det gennemsnitlige Antal Dage med Is for de forskellige Slags Farvande og Havne. Det ses heraf, at Vinteren 1916—1917 havde megen Is, idet Gennemsnits-tallet af Antal Isdage for »Alle Stationer« var 44,9, medens Gennemsnittet for 11 Aar er 17,3.

De sidste 11 Aar grupperer sig imidlertid med Hensyn til Isdagenes Antal i 2 skarpt adskilte Grupper. For de 4 isrige Vintre er Gennemsnittet 36,4 Dage med Is med Grænserne 30,3 og 44,9 Dage; medens Gennemsnittet for de 7 isfattige Vintre er 6,4 Dage med Is og med Grænserne 2,4 og 10,1 Dage. Gennemsnitlig er altsaa 1 af 3 Vintre en Isvinter.

Endvidere ses af disse Tal, at af de 4 isrige Vintre havde Vinteren 1916—1917 langt mere Is end de andre 3 Vintre og den maa derfor betragtes som en særlig langvarig Isvinter.

Meteorologisk Institut bringer sin Tak til alle de Observatorer, hvis Jagtagelser har gjort det muligt at fremkomme med de foreliggende Oplysninger om Is-forholdene i de danske Farvande i Vinteren 1916—1917.

Maj 1917.

was established from January 25 to March 27, or altogether for 64 days. The icesignal service has been established in 8 out of the last 24 winters which corresponds with the appearance of ice in the main waters in 1 out of 3 winters. The earliest date for the establishment of the icesignal service has been January 25 and the average duration of it has been 37 days.

To compare last winter with the 10 preceding winters Table 7 has been compiled, the figures of which give the average number of days with ice in the various waters and harbours. It will appear from this table that ice was very plentiful during the winter 1916—1917, the mean number of days with ice at all the stations was 44.9, while the mean of 11 years is 17.3

Relative to the number of days with ice the last 11 years form two distinctly different groups. During the 4 cold winters the mean is 36.4 days with ice, the limits being 30.3 and 44.9 days; while the mean is 6.4 days with ice for the 7 mild winters, the limits being 2.4 and 10.1 days. On an average 1 out of 3 winters has been a winter with ice.

Further the table will show that of the 4 cold winters the winter 1916—1917 had much more ice than the 3 others, and it must therefore be considered a very long-lasting winter.

The Meteorological Institute herewith desires to express its thanks to the many observers who have rendered it possible to publish the present particulars concerning the state of the ice in the Danish waters during the winter 1916—1917.

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ab. 1.

Luftens Middeltemperatur samt Afgigelserne fra Normalen i Vinteren 1916—1917.

The mean-temperature of the air and the variations from the normal temperature during the winter 1916—1917.

		Fanø (Nordby)	Skagen (Fyret)	Randers (Strømmen)	Samsø (Tranebjerg)	Bogø (Navig. Skolen)	Kjøbenhavn (Met. Inst.)	Hammerhus (Sandvig)
December	Middeltemp..	2.2	2.8	1.8	2.9	2.6	2.9	3.1
	Afgigelser ..	+ 1.3	+ 1.0	+ 1.5	+ 1.1	+ 1.4	+ 1.5	+ 1.2
Januar	Middeltemp..	- 1.4	- 2.7	- 2.8	- 0.5	- 0.4	- 0.9	0.1
	Afgigelser ..	- 1.3	- 3.4	- 2.3	- 0.9	- 0.1	- 1.0	- 0.2
Februar	Middeltemp..	- 1.2	- 0.2	- 2.1	- 1.0	- 2.2	- 1.6	- 1.5
	Afgigelser ..	- 1.1	- 0.2	- 1.5	- 1.2	- 2.1	- 1.5	- 1.6
Marts	Middeltemp..	- 0.7	- 1.8	- 1.7	- 0.9	- 1.4	- 1.4	- 1.8
	Afgigelser ..	- 2.2	- 3.1	- 3.0	- 2.6	- 3.1	- 2.8	- 3.0

ab. 2.

Frostperioderne og Frostdagene i Vinteren 1916—1917.

The frosty periods and frosty days during the winter 1916—1917.

	Frostdage	1ste Frostperiode	Frostdage	2den Frostperiode	3die Frostperiode	4de Frostperiode	Samlet Kuldesum Total amount of cold		
Fanø (Nordby)	a $\frac{17}{11} - \frac{19}{11}$ b 3 c — 2.0	$\frac{1}{12}$ og $\frac{17}{12} - \frac{21}{12}$ 6 — 3.9	$\frac{5}{1} - \frac{6}{1}$ 2 — 2.9	$\frac{10}{1} - \frac{8}{2}$ 30 — 99.8	$\frac{12}{2} - \frac{13}{2}$ 2 — 2.5	$\frac{20}{2} - \frac{23}{2}$ 4 — 9.3	$\frac{4}{3} - \frac{18}{3}$ 11 m. Afb. 3 — 30.4	$\frac{21}{3} - \frac{23}{3}$ og 1 — 6.7 — 0.1	— 157.6
Skagen (Fyret)	a $\frac{18}{12} - \frac{25}{12}$ b 2 c — 0.4			$\frac{10}{1} - \frac{7}{2}$ 29 — 113.5	$\frac{12}{2}$ 1 — 0.3	$\frac{18}{2} - \frac{22}{2}$ 5 — 5.2	$\frac{3}{3} - \frac{17}{3}$ 15 — 56.3	$\frac{20}{3} - \frac{23}{3}$ og 1 — 13.8 — 2.5	— 200.6
Randers (Strømmen)	a $\frac{16}{11} - \frac{17}{11}$ b 2 c — 2.4	$\frac{1}{12}$ og $\frac{18}{12} - \frac{23}{12}$ 5 m. Afb. — 2.4	$\frac{5}{1} - \frac{7}{1}$ 3 — 8.2	$\frac{10}{1} - \frac{8}{2}$ 30 — 146.7	$\frac{11}{2} - \frac{15}{2}$ 3 — 3.3	$\frac{17}{2} - \frac{23}{2}$ 7 — 3.3	$\frac{2}{3} - \frac{10}{3}$ 15 — 46.3	$\frac{20}{3} - \frac{23}{3}$ og 2 — 11.8 — 2.3	— 235.5
Samsø Tranebjerg)	a $\frac{1}{12}$ b 1 c — 0.6	$\frac{5}{1} - \frac{6}{1}$ 2 — 4.9		$\frac{11}{1} - \frac{8}{2}$ 28 m. Afb. — 71.7	$\frac{13}{2}$ 1 — 0.4	$\frac{18}{2} - \frac{23}{2}$ 6 — 7.5	$\frac{2}{3} - \frac{15}{3}$ 12 m. Afb. 4 — 34.4	$\frac{20}{3} - \frac{23}{3}$ og 1 — 10.8 — 1.1	— 131.4
Bogø avig. Skolen)	a $\frac{30}{11}$ b 1 c — 0.4	$\frac{20}{12}$ 1 — 0.7	$\frac{5}{1} - \frac{7}{1}$ 3 — 5.5	$\frac{11}{1} - \frac{9}{2}$ 26 m. Afb. — 83.9	$\frac{11}{2} - \frac{15}{2}$ 3 m. Afb. — 3.7	$\frac{17}{2} - \frac{23}{2}$ 7 — 9.8	$\frac{2}{3} - \frac{15}{3}$ 13 m. Afb. 5 — 36.4	$\frac{20}{3} - \frac{24}{3}$ og 1 — 15.9 — 0.3	— 156.6
Kjøbenhavn (Met. Inst.)	a $\frac{1}{12}$ og $\frac{20}{12}$ b 2 c — 0.3		$\frac{5}{1} - \frac{6}{1}$ 2 — 6.5	$\frac{11}{1} - \frac{8}{2}$ 27 m. Afb. — 85.5	$\frac{11}{2} - \frac{13}{2}$ 3 — 2.9	$\frac{17}{2} - \frac{23}{2}$ 7 — 12.3	$\frac{2}{3} - \frac{15}{3}$ 12 m. Afb. 5 — 41.4	$\frac{20}{3} - \frac{24}{3}$ og 1 — 18.7 — 0.1	— 167.7
Hammerhus (Sandvig)	a		$\frac{5}{1} - \frac{7}{1}$ 2 m. Afb. — 6.7	$\frac{14}{1} - \frac{8}{2}$ 20 m. Afb. — 56.0	$\frac{12}{2}$ 1 — 0.5	$\frac{17}{2} - \frac{23}{2}$ 7 — 11.2	$\frac{1}{3} - \frac{10}{3}$ 15 m. Afb. 5 — 41.0	$\frac{20}{3} - \frac{24}{3}$ og 2 — 20.6 — 1.0	— 137.0

m. 1: a er Frostperiodens Varighed (the duration of the frosty period).

b er Antal af Dage, hvilket Middeltemperatur var under 0° (number of days with a mean-temperature below 0°).

c er Kuldesummen (Produktet af Frostperiodens Middeltemperatur og Dageantallet) (the amount of cold (the product of the mean-temperature of the frosty period and the number of days of the period)).

m. Afb. betyder med Afbrydelse (with interruption).

Tab. 3 a.

Middeltal af Vandets Overfladetemperatur og Saltindhold Kl. 8 Fm. i Vinteren 1916—1917
The mean temperature and salinity of the surface water at 8 a. m. during the winter 1916—1917.

(Det øverste Tal i hver Rubrik angiver Temperaturen, det underste Saltholdigheden i ‰.)
(The upper number in each rubric indicates the temperature, the lower the salinity.)

1916—1917	Skagens-Rev	Læsø-Rende	Anholt-Knob	Lappe-Grund	Odde-Sund	Aalborg	Middelfart	Svendborg-Sund	Kolby-Kaas	Sprogo	Kjels-Nor	Middelgrunds-fortet	Marsnedø	Christiansø	
1/12—10/12	6.8 31.4	5.8 24.0	5.4 22.0	5.2 12.7	4.6 29.2	4.1 22.8	5.0 18.2	4.3 19.0	4.8 19.4	5.1 15.3	4.8 16.0	5.8 11.0	5.0 9.9	6.8 7.3	
11/12—20/12	5.2 26.9	4.7 22.4	4.3 20.2	4.4 10.2	2.8 28.6	2.6 19.3	4.4 17.5	3.8 18.6	4.0 17.0	4.7 12.6	3.8 13.6	5.4 8.7	4.8 8.6	6.3 7.5	
21/12—31/12	4.3 28.5	3.4 22.0	3.6 21.3	3.6 16.9	1.2 28.5	1.2 21.7	3.2 17.9	3.3 18.7	3.3 19.3	4.1 16.0	3.8 16.2	4.6 14.7	3.8 10.5	5.4 7.4	
1/1—10/1	3.6 30.3	3.5 25.0	3.0 22.4	3.0 19.8	1.4 27.8	0.4 20.4	3.2 18.3	2.7 18.7	3.2 21.7	3.5 19.8	3.5 20.3	3.9 16.8	3.4 10.5	4.3 7.2	
11/1—20/1	0.9 24.3	1.4 24.1	1.4 20.1	2.3 8.2	-0.7 25.3	-1.3 21.4	2.2 16.4	1.8 18.0	1.8 18.6	1.7 13.6	1.9 14.5	3.0 8.4	2.3 7.2	3.4 7.1	
21/1—31/1	-1.0 21.3	-1.1 20.7	-0.6 18.9	0.4 9.3	-	-1.6 23.6	0.8 15.6	-1.0 17.0	0.5 13.1	0.0 12.0	0.0 10.2	0.9 7.9	0.1 8.4	2.5 7.2	
1/2—10/2	-	-	-	-	-	-1.5 21.8	-0.3 16.0	-1.6 17.3	-0.8 14.3	-0.5 13.1	-0.7 13.1	-0.1 11.9	-0.6 10.7	1.4 7.2	
11/2—20/2	-	-	-	-	-	-0.7 25.5	-0.8 12.4	0.9 19.1	-0.4 17.5	-0.2 17.8	0.7 16.5	-0.1 17.7	0.4 13.4	1.8 10.6	1.8 7.3
21/2—28/2	2.1 32.2	0.9 22.3	-	-	-0.7 26.5	-1.0 19.0	0.8 18.5	1.6 17.9	0.6 19.6	0.3 15.3	-0.2 15.1	0.5 10.1	-0.1 9.6	1.6 7.2	
1/3—10/3	0.3 25.9	-0.2 22.3	-0.6 20.0	-0.4 12.0	-0.9 24.4	-1.2 20.3	0.7 18.0	-0.4 18.6	0.7 20.0	-0.1 13.9	-0.3 15.9	0.0 9.0	-0.1 9.1	1.1 7.3	
11/3—20/3	-0.2 26.0	-	-	-	-1.0 27.1	-1.3 22.1	-0.2 16.6	-0.4 17.6	-0.6 14.8	0.5 11.9	-0.4 13.4	0.5 10.0	-0.2 9.0	0.2 7.3	
21/3—31/3	1.4 32.2	0.5 24.5	-	-	-0.6 27.6	-0.9 14.6	0.2 17.8	0.4 18.2	0.3 18.6	1.6 16.8	0.0 16.6	0.9 12.9	0.1 11.0	0.1 7.5	

Tab. 3 b.

Overfladevandets Temperatur 19.—29. Jan. 1917.

The temperatur of the sea-surface.

	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.
Skagens-Rev	-0.4	-0.5	-1.1	-0.6	-0.9	-1.2	1.2				
Læsø-Rende	0.0	0.0	-0.5	-1.5	-1.1	-1.3	-1.1	-1.0	-1.1		
Læsø-Trindel	0.3	0.1	-0.1	-0.6	-0.9	-1.0	-1.2	-1.1			
Anholt-Knob	0.8	1.0	0.3	0.0	-0.4	-0.6	-0.7	-0.9	-0.9	-1.0	-1.2
Schultz-Grund	1.8	1.5	1.3	1.3	1.0	0.8	0.2	0.2	-0.1	-0.4	-0.7
Lappe-Grund	1.7	1.4	1.3	1.3	1.0	0.4	0.1	-0.2	-0.3	-0.4	
Drogden	2.2	1.4	1.1	0.8	0.6	0.6	0.6	0.3	-0.1	-0.4	

Temperaturen i 5 Meters Dybde.

The temperature in 5 Meter depth.

Skagens-Rev	0.1	0.1	-0.4	-0.3	-0.7	-1.0	-0.9				
Læsø-Rende	-0.2	-0.1	-0.3	-0.2	-1.1	-0.8	-0.7	-1.1	-0.9		
Læsø-Trindel	0.5	0.9	-0.2	-0.2	-1.1						
Anholt-Knob	0.8	0.9	0.3	0.3	-0.2	0.4	0.4	-0.3	-1.0	-0.7	-0.9
Schultz-Grund	1.9	1.8	1.4	1.6	1.3	1.1	0.6	0.5	0.0	-0.1	-0.6
Lappe-Grund	2.1	1.8	2.9	2.2	1.8	2.1	0.6	1.3	2.1	1.1	
Drogden	2.3	1.9	1.7	1.6	1.1	1.3	0.9	0.3	-0.1	0.1	

Daglige lagttagelser over Is- og Besællingstorholdene

i de danske Farynde for Vinteren 1916-1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916–1917.

Januar

Daglige lagttagelser over Is- og Besejlingsforholdene

X

Tab. 4.

i de danske Farvande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916-1917.

Daglige lagttageiser over Is- og Besetningstørholdene

i de danske Farvande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Daglige lagttagelser over Is- og Besejlingsforholdene

Tab. 4.

i de danske Farvande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Daglige lagttageiser over IS- og Besejllingstornoidene

i de danske Farvande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Daglige lagttagelser over Is- og Besejlingsforholdene

XXI

Tab. 4. Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Døgnge tagtageiser over IS- og Besetningstorholdene

i de danske Farvande for Vinteren 1916—1917

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Marts

Daglige lagttagelser over Is- og Besejlingsforholdene

Tab. 4.

i de danske Farvande for Vinteren 1916—1917

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

		Marts																													Bemærkninge Remarks			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	Limfjorden.																																	
Thyborøn Kanal	{Isforh. Besejlfh.	.	.	c	c	c	c	c	c	.	b	c	n	e	e	e	e	e	e	e	e	e	e	e	e	15 cm. d. 4.	
Lemvig Havn og Lem-Vig.	{Isforh. Besejlfh.	g	g	g	g	g	d	d	h	h	h	e	e	e	e	e	e	s	s	r	r	r	r	r	r	r	r	r	r	r	17—24. Rende.			
Nissum Bredning.....	{Isforh. Besejlfh.	f	f	f	f	f	f	f	f	f	f	f	f	f	f	f	f	g	g	g	g	g	g	g	g	g	g	g	g	g	20—21. Rende.			
Oddesund.....	{Isforh. Besejlfh.	c	c	c	c	c	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	c. 70 cm. d. 10.				
Struer Havn og Bugt.....	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g				
Thisted Bredning	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	10 cm. d. 4.				
Sallingsund.....	{Isforh. Besejlfh.	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	k	k	k	k	k	k	k	k	.	.	.			
Skive Havn og Fjord.....	{Isforh. Bcsejlfh.	o	o	o	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	g				
Løgstør Bredning	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g				
Limfjorden udfor Løgstør .	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g					
Limfjorden udfor Nibe....	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g					
Limfjorden udfor Aalborg .	{Isforh. Besejlfh.	.	.	c	c	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	i	24 cm. d. 9.					
Limfjorden Aalborg—Hals.	{Isforh. Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	28 cm. d. 10.				
Kattegat.																															I—31. Renæ.			
Ved Skagen.....	{Isforh. Besejlfh.	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	c				
Skagen Havn	{Isforh. Besejlfh.	.	.	.	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	n					
ved Hirsholmene.....	{Isforh. Besejlfh.	b	c	i	i	k	k	c			
Frederikshavn	{Isforh. Besejlfh.	.	.	.	b	b	i	i	i	i	i	i	i	d	b	b	b	b	b	b	b	b	b	b	b	b	b	b	.					
Læsø Rende	{Isforh. Besejifh.	c	i	.	k	f	k	k			
Frhvñ.—Gøteborg. vestl. Del .	{Isforh. Besejlfh.	.	.	.	.	.	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
Frhvñ.—Gøteborg. østl. Del ..	{Isforh. Besejlfh.	.	.	.	.	.	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	.
Kattegat Øst for Læsø	{Isforh. Besejlfh.	k	.	k				
Kattegat Øst for Anholt...	{Isforh. Besejlfh.	.	.	.	.	.	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
Kattegat Vest for Anholt..	{Isforh. Besejlfh.	.	.	.	.	b	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	
Udenfor Hals Barre	{Isforh. Besejlfh.	i	f	p	g	t	g	t	g			
Mariager Fjord	{Isforh. Besejlfh.	.	.	.	.	.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g
Indløb til Mariager Fjord .	{Isforh. Besejlfh.	e	e	e	e	e	e	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g					
Katt. v. Rand.—Mariag. Fj.	{Isforh. Besejlfh.	o	o	o	o	q	q	r	r	s	s	s	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	p				
Randers Fjord.....	{Isforh. Besejlfh.	k	k	k	k	d	d	d	d	d	d	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	f					
Indløb til Randers Fjord ..	{Isforh. Besejlfh.	p	c	c	c	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	11—25. Rende.				
Kattegat ved Hjelm	{Isforh. Besejlfh.	b	.	b	.	b	.	b	.	b	.	b	.	b	.	b	.	b	.	b	.	b	.	b				
Æbeltoft Vig.....	{Isforh. Besejlfh.	b	b	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	1—31. Rende.			
Aarhus Bugt	{Isforh. Besejlfh.	b	b	c	e	e	e	e	c	c	.	.	.	b			
Aarhus Havn.....	{Isforh. Besejlfh.	.	.	.	b	b	c	e	e	e	e	c	c	b	n				
Horsens Havn og Fjord ..	{Isforh. Besejlfh.	g	g	f	f	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	12 cm. d. 5.					
		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	6-7., 10-20., 25. Rei					

Daglige tagvægter over is- og besejlingsstornolæne

i de danske Farvande for Vinteren 1916–1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

Daglige lagttagelser over Is- og Besejlingsforholdene

Tab 4.

i de danske Farvande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

auslandserwerb **auslandserwerb** **auslandserwerb** **auslandserwerb** **auslandserwerb**

i de danske Faryande for Vinteren 1916—1917.

Daily observations concerning the ice and the navigation in the danish waters during the winter 1916-1917.

April

Daglige lagttagelser over Is- og Besejlingsforholdene

XX

Tab. 4. i de danske Farvande for Vinteren 1916—1917.
Daily observations concerning the ice and the navigation in the danish waters during the winter 1916—1917.

		April																													Bemærkninger Remarks					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
	Kattegat.																																			
Mariager Fjord	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	f	o	f																	
Randers Fjord.....	{Isforh. {Besejlfh.	c	c	c	c	c	c	c																												
Indløb til Randers Fjord ..	{Isforh. {Besejlfh.	p	o	n	n	n	/n																													
	Store Bælt.																																			
Nakskov Fjord	{Isforh. {Besejlfh.	f	f																																	
	Lille Bælt.																																			
Fredericia Havn	{Isforh. {Besejlfh.	d	d	d	d	d	d	d	d	d																										
	Østersøen.																																			
Fakse Bugt inderste Del ..	{Isforh. {Besejlfh.	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c				
Præstø Havn og Fjord....	{Isforh. {Besejlfh.	g	g	g	g	g	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b				
	Isefjorden.																																			
Nykjøbing Havn og Fjord .	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	d	s	t	k	k	k	k	k	k	k	k	k	k	k	k	k				
Holbæk Havn og Fjord ..	{Isforh. {Besejlfh.	g	g	f	f	k	k	k	k	k	k	k	k	k	k	k	k	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r			
Roskilde Havn	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t			
Roskilde Fjord	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	k	k	k	k	k	k	k	k	k	k	k	k	k	k	k	k	k			
	Smaalandsfarvandet.																																			
Staaldybet	{Isforh. {Besejlfh.	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c			
Vordingborg Havn.....	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g				
Kallehave—Stege	{Isforh. {Besejlfh.	f	f	f	f																															
Bøgestrømmen	{Isforh. {Besejlfh.	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t		
	Farvandet S. for Fyen.																																			
Faaborg Havn og Fjord...	{Isforh. {Besejlfh.	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h			

35 cm d. 1.

Bemærkninger
Remarks

	Isforholdene State of ice												Besejlingsforholdene Navigation												Isens største Tykkelse i cm Greatest thickness of ice in cm																			
	Løs Sjæl- og Kvædderis		Sammenpakket Sjæl- og Kvædderis		Sprett Drivis		Drivis		Svær Drivis		Pakis		Skrueis		Tynd Fastis		Svær Fastis		Med Is;		Skibsf. uhindret		Skibsf. vanskellig for Sejlskibe		Skibsf. vanskelig; p. f. Sejls. k. m. B.		Skibsf. lukket for Sejlskibe		Skibsf. kun mulig for kraft. Damps.		Skibsf. kun mulig med Isbryderhj.		Skibsf. helt lukket		Rende holdes aaben n. Isbryder		Antal Dage med Is		Number of days with ice		Første Ismedeling First ice report		Sidste Ismedeling Last ice report	
	b	e	c	f	k	i	g	h	d	g	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb	cc	dd	ee	ff	gg	hh													
Vestkysten.	Antal Dage												Antal Dage												Isfri.																			
Esbjerg	20	..	3	15	..	7	..	..	..	..	14	6	18	7	..	..	..	..	..	..	..	..	..	45	22/1	17/8	22	c.25	..		
Graadyb .....	..	..	37	12	1	9	..	..	..	..	29	2	19	8	..	..	..	..	..	..	..	..	..	59	10/1	18/3	..	..	..												
Farf. ved »Vyl« Fyrskib .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ringkøbing Fjord (nordl. Del)	4	3	..	10	..	11	..	13	48	..	..	3	2	2	10	..	..	72	..	..	..	..	..	89	7/1	10/4	38	..	..													
Limfjorden.	Antal Dage												Antal Dage												Pakis maalt til 70 cm.																			
Thyborøn Kanal	11	..	6	..	..	..	..	..	..	..	8	5	4	..	..	..	..	..	..	..	..	..	..	17	15/1	20/3	..	..	..												
Lemvig Havn og Lem Vig ..	2	26	1	4	..	3	3	46	..	..	1	3	1	2	34	4	40	24	..	..	..	..	..	85	15/1	9/4	35	..	..													
Nissum Bredning .....	..	..	2	..	22	..	..	3	41	..	..	5	..	22	3	12	26	14	..	..	..	..	..	68	18/1	26/3	31	..	..													
Oddesund	2	20	9	..	5	..	..	4	33	..	..	2	1	1	40	15	9	..	..	..	..	..	73	10/1	4/4	..	..	..													
Striber Havn og Bugt .....	..	..	6	..	1	2	..	5	74	..	..	4	12	..	8	..	63	1	..	..	..	..	..	88	11/1	10/4	50	..	..													
Thisted Bredning .....	..	..	2	..	..	..	..	5	70	..	..	2	..	5	..	..	..	70	..	..	..	..	..	77	18/1	18/4	10	..	..													
Sallingsund	1	2	19	9	..	..	..	2	38	..	..	5	1	24	4	..	..	37	..	..	..	..	..	71	18/1	2/4	22	..	..													
Skive Havn og Fjord	3	..	..	..	2	..	..	6	85	..	..	3	1	4	11	71	..	..	..	..	..	..	..	96	20/12	12/4	..	..	..												
Løgstør Bredning	6	3	3	..	10	..	..	5	66	..	..	5	4	..	3	5	3	73	..	..	..	..	..	93	11/1	13/4	33	..	..													
Limfjorden udfor Løgstør .....	..	..	4	7	..	..	..	..	78	..	..	4	7	..	..	9	69	..	..	..	..	..	..	89	15/1	18/4	..	..	..												
Limfjorden udfor Nibe	1	..	..	..	8	..	..	3	75	..	..	1	2	3	10	1	69	..	..	..	..	..	..	87	12/1	8/4	24	..	..													
Limfjorden udfor Aalborg .....	..	..	7	..	20	..	..	6	38	..	..	..	21	9	10	31	..	..	..	..	..	..	..	71	10/1	28/8	30	..	..													
Limfjorden Aalborg-Hals	4	..	3	2	74	30	21	32	..	70	83	17/1	9/4	30														
Kattegat.	Antal Dage												Antal Dage												Skrueis 75 cm.																			
Ved Skagen	6	1	1	1	3	3	..	..	2	..	4	3	2	..	7	1	..	..	..	..	..	..	..	17	23/1	23/3	..	..	..												
Skagen Havn	13	2	..	..	..	..	..	16	..	..	3	10	8	3	7	..	..	..	..	..	..	..	..	31	15/1	15/3	31	..	..													
Ved Hirtsholmene	1	..	5	3	..	6	..	..	4	..	1	5	3	1	9	..	..	..	..	..	..	..	..	19	26/1	16/3	..	..	..												
Frederikshavn	10	..	2	..	..	6	..	5	10	..	9	..	21	..	3	..	..	..	..	..	..	..	..	33	19/1	17/3	30	..	..													
Læsø Rende	1	I	9	4	4	5	2	..	..	..	2	7	1	1	7	..	8	..	..	..	..	..	..	26	24/1	28/3	..	..	..												
Frhvn.-Gøteborg. vestl. Del.	16	I	3	3	3	..	..	..	..	..	10	4	..	3	3	6	..	..	..	..	..	..	..	26	21/1	16/3	..	..	..												
Frhvn.-Gøteborg. østl. Del.	19	I	5	4	3	..	..	..	..	..	10	8	3	5	6	..	..	..	..	..	..	..	..	32	19/1	16/3	..	..	..												
Kattegat Øst for Læsø .....	..	2	2	4	1	..	..	..	4	..	4	1	1	4	1	..	..	..	..	..	..	..	..	11	25/1	11/3	..	..	..												
Kattegat Øst for Anholt .....	..	..	7	3	..	..	..	2	4	..	6	5	..	1	3	1	..	..	..	..	..	..	..	16	28/1	11/3	..	..	..												
Kattegat Vest for Anholt	2	..	8	5	1	..	..	..	2	..	3	7	2	2	3	1	..	..	..	..	..	..	..	18	27/1	11/3	16	..	..													
Anholt Havn	3	..	1	4	..	..	..	6	13	..	9	4	3	6	5	..	..	..	2	..	..	..	..	27	19/1	14/2	15	..	..													
Udenfor Hals Barre	4	1	..	1	4	1	..	..	4	..	4	1	3	6	5	..	..	..	1	..	..	..	..	15	25/1	23/3	30	..	..													
Mariager Fjord	4	2	2	81	..	6	..	13	11	59	89	15/1	13/4														
Indløb til Mariager Fjord	2	15	7	..	..	3	..	..	..	..	40	9	9	6	7	4	20	12	..	..	..	..	..	67	6/1	25/3	..	..	..												
Katg. v. Rand. og Mariag. Fjd.	6	8	..	..	..	..	..	..	7	..	..	6	..	15	..	..	..	..	..	..	..	..	..	21	27/1	15/3	..	..	..												
Randers Fjord	3	2	7	9	5	..	..	..	8	47	..	3	4	65	5	4	..	..	..	..	..	..	..	50	81	5/4	..	..	..												
Indløb til Randers Fjord	17	33	7	31	..	8	4	73	3	76	88	6/1	3/4	34														
Grenaa Havn .....	..	..	..	..	..	..	..	2	..	2	..	1	..	1	..	2	..	..	..	..	..	..	..	40	27/1	11/3	..	..	..												
Kattegat ved Grenaa .....	..	..	..	1	2	2	..	..	..	..	..	1	1	..	..	2	..	..	..	..	..	..	..	15	27/1	11/3	13	..	..													
Kattegat ved Hjelm	7	..	5	3	..	3	..	..	..	..	9	2	2	1	2	2	..	..	..	..	..	..	..	18	29/1	28/3	..	..	..												
Ebeltoft Vig	3	6	..	..	..	..	..	8	23	..	1	5	11	..	23	..	..	..	..	..	..	..	..	40	27/1	19/3	..	..	..												
Aarhus Bugt	5	..	4	..	..	..	..	1	5	..	5	3	1	1	5	..	..	..	..	..	..	..	..	15	27/1	11/3	13	..	..													
Aarhus Havn	5	13	11	..	..	3	..	..	..	..	6	5	18	..	3	..	..	..	..	..	..	..	..	32	20/1	22/3	..	..	..												
Horsens Havn og Fjord	3	..	14	1	2	..	..	5	47	..	6	44	..	19	3	..	45	..	..	..	..	..	..	72	16/1	28/3	30	..	..													
Farv. Vest for Samsø	3	4	7	4	..	3	..</																																					

(Sammendrag af Tabel 4.)
(Summary of Tab. 4.)

Tab. 5.

	Isforholdene State of ice										Besejlingsforholdne Navigation										Bemærkninger Remarks																			
	Løs Sjæl og Kvædderis		Sammenpakket		Spredt Drivis		Drivis		Svær Drivis		Pakis		Skrueis		Tynd Fastis		Med Is;		Skibsf. ubhærdet		Stibst. vanskælig for Sejskibe		Stibst. vanskælig; f. Sejls. k. m. B.		Skibsf. lukket for Sejskibe		Stibst. kun mulig for kraft. Dampsks.		Skibsf. helt lukket		Rende holdes aabten m. Isbryder		Antal Dage med Is Number of days with ice		Første Ismedeling First ice report		Sidste Ismedeling Last ice report		Isens største Tykkelse i cm Greatest thickness of ice in cm	
	b	e	c	k	f	i	h	d	g	n	o	p	q	r	s	t	u	v	w	x	y	z	aa	bb	cc	dd	ee	ff	gg											
Store Bælt.																																								
Nyborg Havn	3	3	2	..	..	..	..	..	..	12	..	4	3	5	8	..	..	..	..	..	..	..	20	2/2	22/3	—	—	—	—
Nyborg Fjord . . . . .	..	5	..	2	..	..	I	..	..	6	3	..	4	6	3	..	..	..	..	..	..	..	16	4/2	22/3	—	—	—	—
Vesterrenden	5	2	..	8	..	I	..	..	..	..	..	..	4	6	..	6	..	..	..	..	..	..	16	4/2	16/3	—	—	—	—
Østerrenden	6	..	8	6	..	..	3	..	..	3	..	..	7	6	..	10	3	..	..	..	..	..	26	4/2	17/3	—	—	—	—
Korsør Havn	4	13	2	4	..	2	5	8	I	7	10	23	4/2	16/3	—	—	—	—										
St. Bælt ved Omø	6	3	8	I	I	3	2	..	..	..	..	5	8	7	I	7	..	..	..	..	..	..	34	1/2	18/3	—	—	—	—	
St. Bælt ved Albuen	2	2	I	2	3	..	..	..	..	..	..	7	I	7	..	5	..	..	..	..	..	..	20	4/2	18/3	—	—	—	—
Nakskov Havn	3	..	..	5	..	..	..	..	..	4	15	3	5	23	..	31	..	..	..	..	..	..	62	19/1	27/3	30	—	—	—
Nakskov Fjord . . . . .	..	..	..	25	..	..	..	..	..	I	46	..	..	32	..	27	..	..	..	..	..	..	72	21/1	2/4	30	—	—	—
Indløbet til Nakskov Fjord	7	15	3	..	..	..	..	..	..	4	18	4	30	..	13	..	..	..	..	..	..	..	47	25/1	10/3	28	—	—	—
St. Bælt ved Kjelsnor	I	5	10	2	..	..	4	..	I	..	9	5	I	2	6	..	..	..	..	..	..	..	23	1/2	17/3	—	—	—	—		
Lille Bælt.																																								
Fary. udfor Åbelø	4	2	I	5	6	..	..	2	..	I	11	7	4	8	..	..	..	..	..	..	..	..	30	29/1	23/3	12	—	—	—	
Vejle Havn og Fjord . . . . .	..	3	..	..	..	6	I	3	60	..	..	3	20	4	36	..	..	10	65	73	12/1	20/3	20	—	—	—	—	—	—			
Bogense Havn	5	..	..	2	..	..	..	..	20	2	..	2	..	3	..	..	..	..	..	..	..	..	20	1/2	20/3	15	—	—	—
Fredericia Havn	I	3	9	3	..	I	12	..	16	9	3	28	30/1	7/4	5	—	—	—										
Lille Bælt ved Middelfart	I	8	15	4	19	2/2	15/3	—	—	—	—										
Kolding Havn og Fjord	3	3	3	I	2	2	64	4	..	5	28	34	7	59	78	12/1	30/3	25	—	—	—										
Lille Bælt ved Assens . . . . .	..	..	9	9	..	..	..	8	3	..	..	2	..	18	6	I	2	..	..	..	..	..	29	1/2	20/3	15	—	—	—
Farvandet udfor Skjoldnæs	16	..	10	2	4	I	..	I	..	15	4	..	..	6	9	..	..	..	..	..	..	..	34	31/1	19/3	—	—	—	—		
Østersøen.																																								
Rødby Havn	2	24	..	..	..	..	..	2	16	2	6	6	..	30	..	..	..	..	..	..	..	..	44	24/1	23/3	—	—	—	—
Femerbælt udfor Rødby	I	14	I	3	3	..	..	9	..	I	..	I	2	..	27	..	..	..	..	..	..	..	31	3/2	1/3	—	—	—	—		
Nysted Bredning . . . . .	..	2	2	5	I	3	7	..	6	36	..	8	2	..	38	3	20	..	..	..	..	..	71	21/1	1/4	31	—	—	—					
Farvandet udfor Gjedser	24	4	7	..	2	..	..	4	3	15	10	9	5	4	I	..	..	..	..	..	..	..	44	29/1	20/3	10	—	—	—		
Farvandet udfor Møen	9	3	6	I	..	..	..	..	..	..	9	8	..	..	2	..	..	..	..	..	..	..	19	6/2	27/3	6	—	—	—
Fakse Bugt, underste Del	I	21	19	..	..	..	..	..	10	9	..	11	..	I	19	..	29	..	..	..	..	..	60	28/2	6/4	27	—	—	—	
Præstø Havn og Fjord	2	I	..	..	..	..	..	..	6	72	..	5	4	..	13	8	51	..	..	..	..	..	81	28/1	6/4	27	—	—	—
Bornholm.																																								
Rønne Havn . . . . .	..	..	..	..	..	..	..	..	28	..	3	5	20	..	..	..	..	..	..	..	..	..	28	30/1	24/3	10	—	—	—
Østersøen ved Rønne . . . . .	..	..	..	..	..	..	..	..	I	..	..	5	6	..	..	..	..	..	..	..	..	..	I	24/3	27/3	—	—	—	—
Østersøen ved Hammeren	4	..	3	4	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	I	14/3	20/3	—	—	—	—
Østersøen ved Christiansø . . . . .	..	..	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	19/3	20/3	—	—	—	—
Neksø Havn . . . . .	..	2	..	..	..	..	..	..	19	8	29	..	..	..	..	..	..	..	..	..	..	..	29	1/2	14/3	20	—	—	—
Østersøen ved Dueodde . . . . .	..	..	..	..	..	..	..	I	..	I	..	..	..	..	..	..	..	..	..	..	..	..	I	24/3	24/3	—	—	—	—
Isefjorden.																																								
Indløbet til Rørvig	6	..	..	31	..	..	..	..	..	..	..	6	..	31	..	..	..	..	..	..	..	..	37	30/1	17/3	—	—	—	—
Nykøbing Havn og Fjord	I	I	5	2	3	75	..	I	4	..	I	72	79	19/1	7/4	—	—	—	—										
Holbæk Havn og Fjord	I	..	I	5	2	2	71	2	9	3	66	..	82	81	16/1	6/4	40	—	—	—										
Roskilde Havn . . . . .	..	..	..	..	..	..	..	..	I	70	..	4	..	3	4	..	70	..	..	..	..	..	85	16/1	10/4	27	—	—	—
Roskilde Fjord . . . . .	..	..	..	..	4	..	..	I	70	..	4	..	5	6	..	70	..	..	..	..	..	..	37	30/1	17/3	26	—	—	—
Smaalandsfarvandet.																																								
Skjelsør Havn og Fjord . . . . .	..	..	..	7	..	5	..	8	40	..	..	41	..	19	..	..	..</td															

ab. 6.

Oversigt over Inddragningen af danske Fyrskibe under Isforhold.

Oplysningerne begynder 1879*)

Withdrawal of Danish light-ships during ice.

The reports commence 1879).*

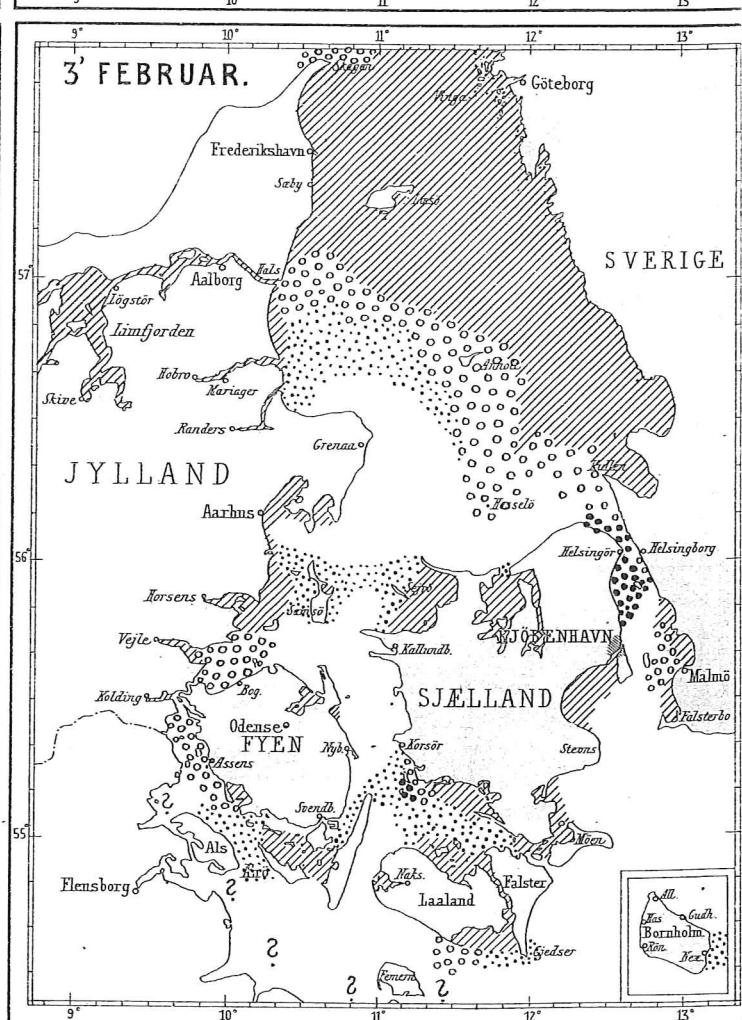
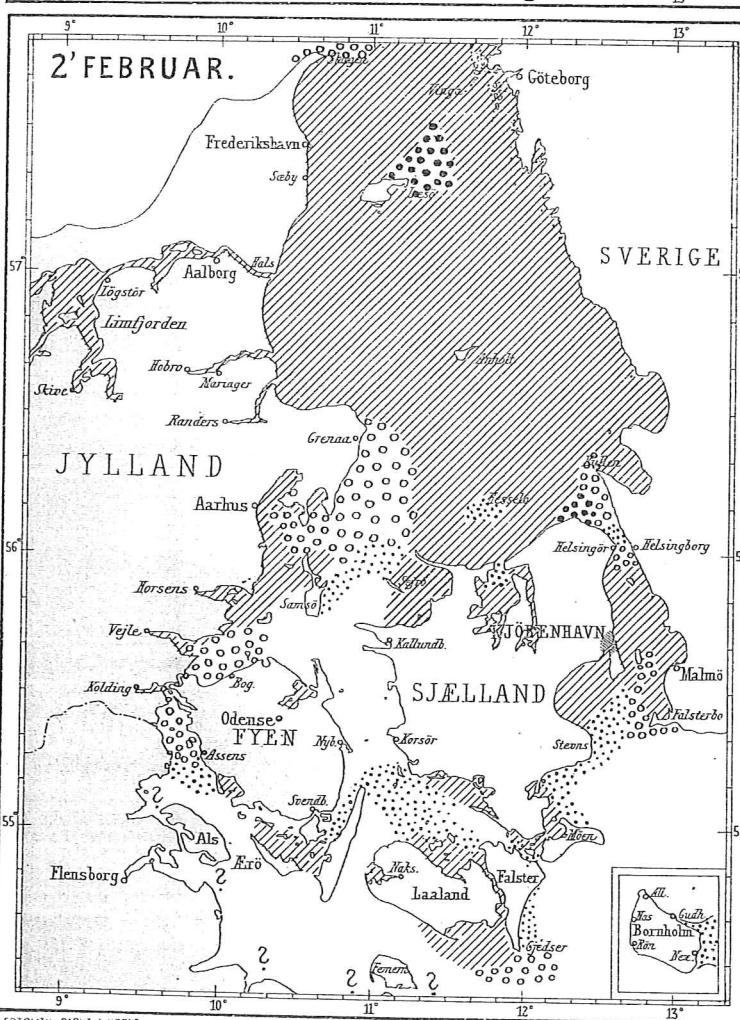
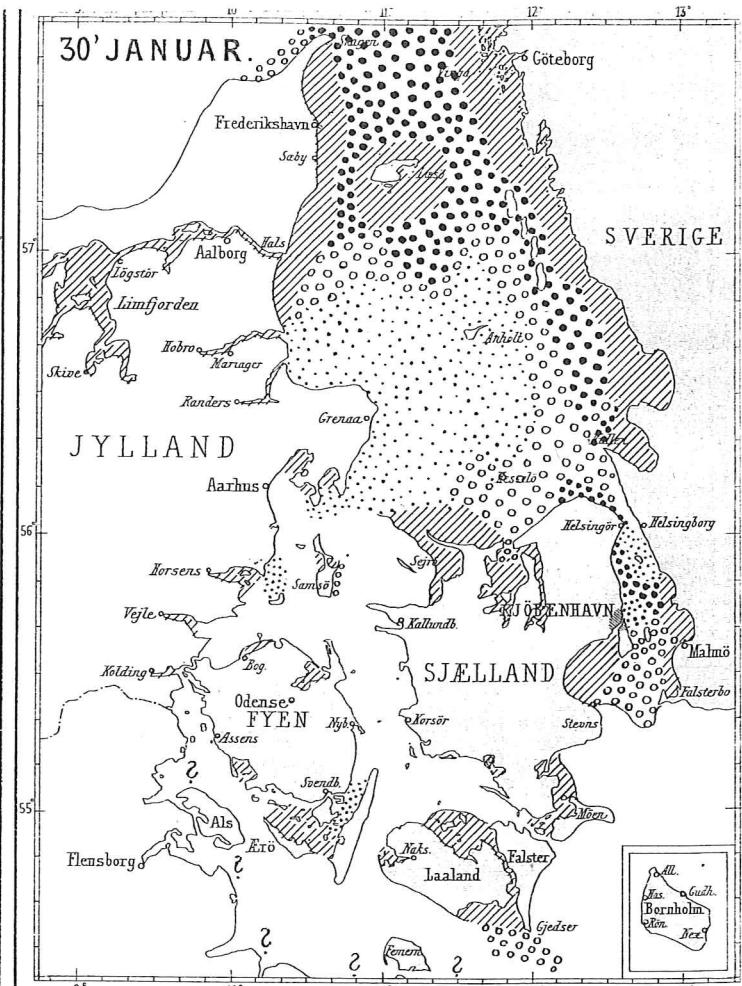
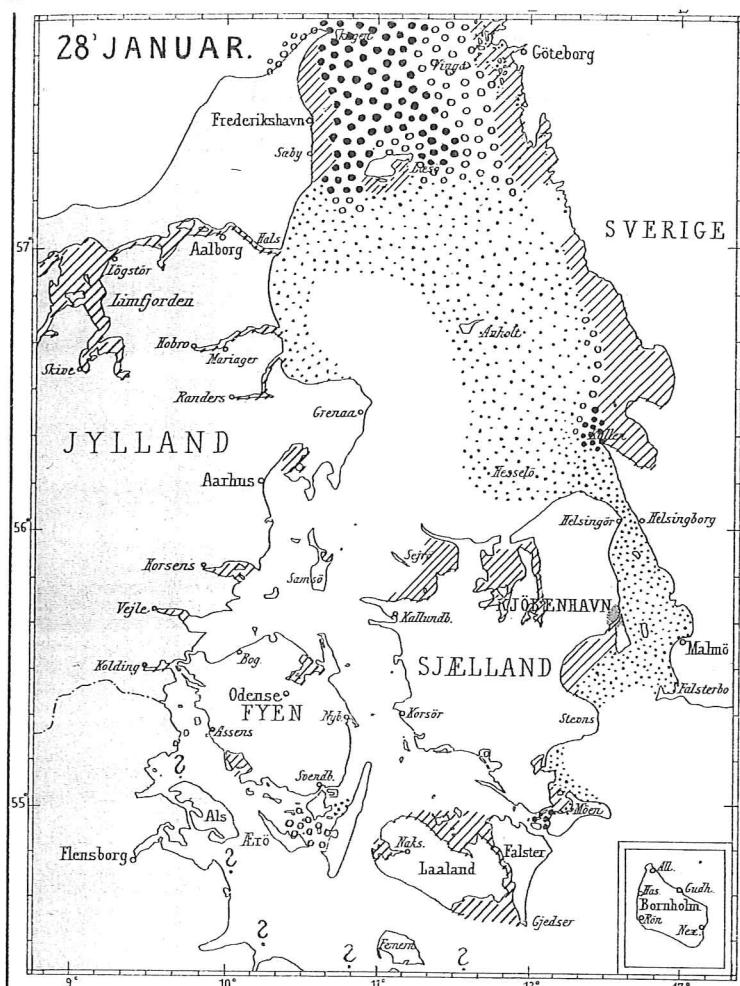
	Vinteren 1916—1917		Antal Dage fra Station paa Grund af Is <i>Number of days of the station on account of ice</i>	Har siden 1879 været inddraget <i>withdrawn since 1879</i>			Bemærkninger <i>Remarks</i>
	Inddraget <i>withdrawn</i>	Udlagt <i>replaced</i>		i Antal Vintre <i>Number of winters</i>	Alt Dage <i>Total number of days</i>	Antal Dage pr. Vinter med Is <i>Number of days per winter with ice</i>	
Horns-Rev.....			—	I	3	3	
Vyl.....	Ikke inddraget i Vinteren 1916—1917. <i>Not withdrawn during the winter 1916—1917.</i>		—	I	12	12	
Graadyb			—	I	8	8	*) { Udlagt i 1906. <i>Established in 1906.</i>
Skagens-Rev.....	25/1	10/2	26	11	394	36	
Læsø-Trindel	20/1 7/3	19/2 21/3	40	12	431	36	
Læsø-Rende	27/1 10/3	24/2 22/3	42	13	463	36	
Østre-Flak.....	24/1 9/3	27/2 22/3	49	3	89	30	*) { Udlagt i Juli 1908. <i>Established in July 1908.</i>
Anholt-Knob.....	29/1 7/3	26/2 25/3	51	14	509	36	
Schultz-Grund	30/1 9/3	28/2 21/3	43	13	524	40	
Lappe-Grund	28/1 7/3	25/2 28/3	51	13	354	27	*) { Oplysningerne begynder 1883. <i>The reports commence 1883.</i>
Drogden	28/3 7/3	21/2 28/3	47	14	561	40	
Gedser-Rev.....	—	—	—	12	521	43	{ Var inddraget af andre Aarsager end Is i Foraaret 1917. <i>Withdrawn during the spring 1917 from other causes than ice.</i>

ab. 7.

Sammenligning mellem de forskellige Vintre.

Comparison between the various winters.

Antal Dage med Is for: <i>Number of days with ice in:</i>	1906 —07	1907 —08	1908 —09	1909 —10	1910 —11	1911 —12	1912 —13	1913 —14	1914 —15	1915 —16	1916 —17
Aabne Farvande (<i>The fairways</i>).....	6.6	0.2	18.6	0.1	0	17.7	0.3	0.1	0.0	0.1	21.4
Havne ved aabent Farvand (<i>Harbours situated at the fairways</i>).....	17.4	2.9	28.4	2.2	0.5	20.4	3.2	2.1	0.5	2.7	33.5
Tildels lukkede Farvande (<i>Partly closed waters</i>)	24.2	6.7	41.0	2.1	0.2	35.1	6.2	4.6	2.7	3.7	50.7
Havne ved indelukkede Farvande (<i>Harbours situated in closed waters</i>)..	52.8	25.5	69.2	14.2	9.6	49.1	18.4	15.0	16.9	18.1	71.6
Indelukkede Farvande (<i>Closed waters</i>)	57.9	32.2	66.3	20.7	5.6	52.9	19.1	16.6	19.3	22.1	78.5
Alle Stationer (<i>All stations</i>)	30.3	10.1	38.8	5.7	2.4	31.5	7.4	6.0	6.1	7.3	44.9
Middeltal af Kuldemængde for Stat. i Tab. II (<i>Mean amount of cold for the stations in Tab. II</i>).....	121.1	65.8	151.6	37.9	23.9	128.6	31.9	49.2	66.3	68.2	169.5

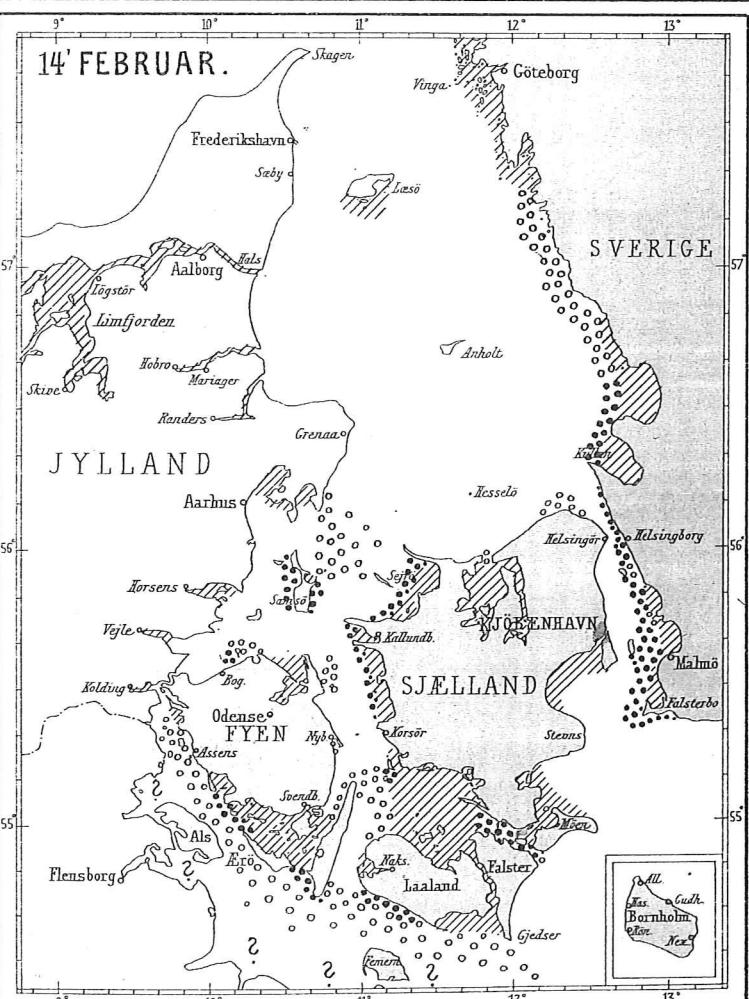
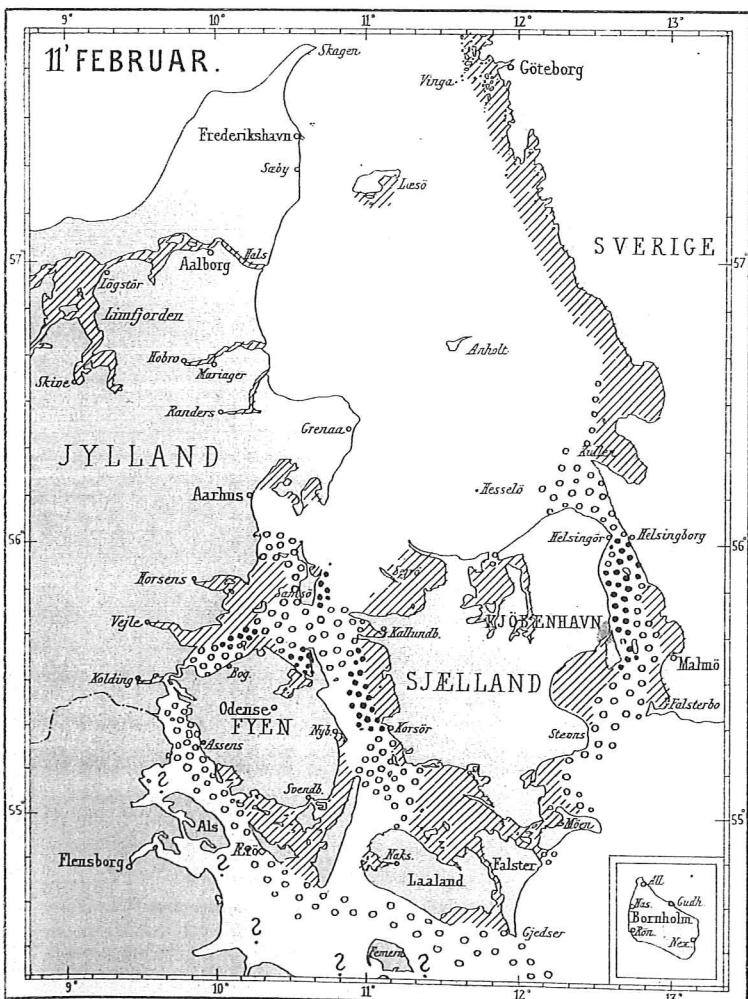
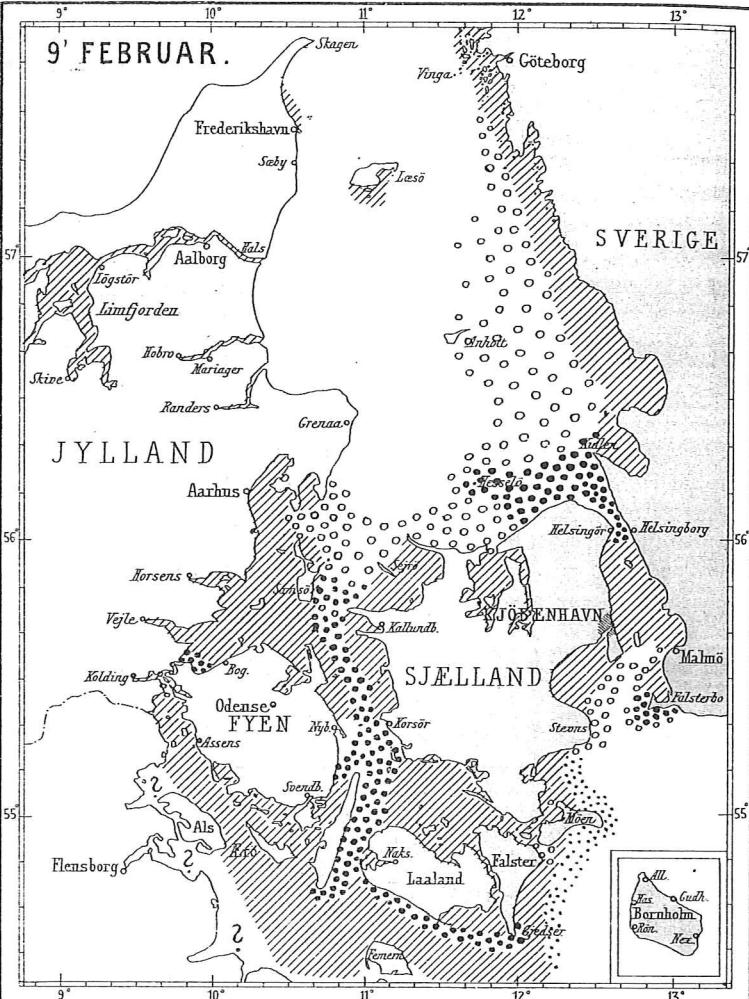
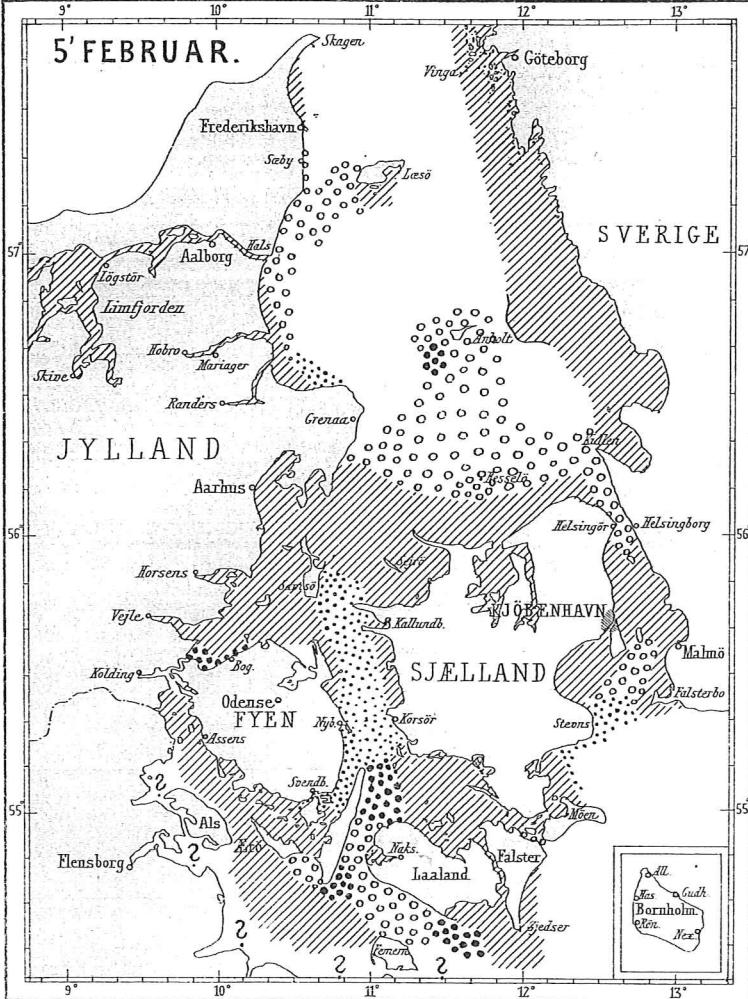


Myis og Sjapis.
bay-ice and brash.
spredt Drivis. - open ice.

 soer Drivis, Skrueis og Pakis.
heavy drift-ice and pack.
 Fastis. - fast ice.

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