

## Order for Greenland on pilotage, etc.

Pursuant to Section 8(3), Section 12(2), Section 17(1) and (2), and Section 34(4) of Order no. 985 of 24 August 2015 on the entry into force for Greenland of parts of the Pilotage Act, shall be laid down:

### Chapter 1

#### *Usage and definitions*

**Section 1.** The Executive Order applies to the issuance of trainee pilot ID cards and pilot certificates in Greenlandic waters.

**Section 2.** For the purposes of this Executive Order:

- 1) Pilot: A person who is certified by the Danish Maritime Authority to pilot.
- 2) Pilot certificate: A certificate issued by the Danish Maritime Authority that the holder is authorised to carry out specified pilotage operations.
- 3) Pilotage: Advising the ship's master on navigation, sailing and manoeuvring.
- 4) Pilotage area: The geographical area in which a pilot is legitimised to pilot according to their pilot certificate.
- 5) Trainee pilots: A person who is recognised by the Danish Maritime Authority who is training to become a pilot.
- 6) Trainee pilot ID card: A certificate issued by the Danish Maritime Authority that the holder is training to become a pilot and has the right to participate in peer-to-peer training.
- 7) Polar regions: Areas defined as polar regions according to the International Code for Ships Operating in Polar Waters (Polar Code).
- 8) Peer-to-peer training: Practical or simulated pilot training to be conducted by a pilot who is certified to pilot in the relevant pilotage area. Peer-to-peer training can be calculated at a maximum of once per 24-hour period for each pilotage area applied for, whereby the destination of any quay calls can also be added.

### Chapter 2

#### *Pilot certificate*

**Section 3.** The Danish Maritime Authority issues a pilot certificate upon application if the applicant:

- 1) is trained to a level that allows the applicant to operate ships of any size (master's certificate),
- 2) has several years' experience as a master or chief mate from relevant sailing, including a minimum of two years' experience

- as master or chief mate of ships of 500 GT or more,
- 3) can document sufficient knowledge of electronic navigational charts (ECDIS),
- 4) is in possession of a valid health certificate without remarks, cf. Subsection 4,
- 5) has completed pilot training, cf. Chapter 4,
- 6) has completed peer-to-peer training, see Chapter 5,
- 7) has special knowledge and experience in the geographical pilotage area applied for, cf. Chapter 3,
- 8) has passed a theoretical and practical aptitude test as set out in Chapter 6; and
- 9) is affiliated with a pilotage company registered pursuant to Section 24(4) of the order on the entry into force of parts of the Pilotage Act for Greenland.

*Subsection 2.* The Danish Maritime Authority may grant exemptions from the rules in Subsection 1(1-2). However, a pilot certificate can never be issued for piloting ships that the pilot is not trained to pilot.

*Subsection 3.* The pilot certificate states which pilotage areas the pilot is certified to pilot in.

*Subsection 4.* If a health certificate in accordance with Subsection 1(4) contains remarks, the Danish Maritime Authority may request additional information in order to assess whether the applicant is able to fulfil the duties of a pilot.

**Section 4.** The electronic pilot certificate is designed in accordance with the provisions of Appendix 1.

*Subsection 2.* As long as the pilot has one valid pilotage area, cf. Appendix 3, the pilot certificate is valid until the pilot reaches the age of 70, after which an application must be submitted every five years.

**Section 5.** If a pilot finds that it is not possible to maintain the required local experience, the pilot can gain the experience by participating in peer-to-peer training in the relevant pilotage area, see Appendix 3, before the end of the period.

### Chapter 3

#### *Requirements for trainee pilots*

**Section 6.** Upon application, the Danish Maritime Authority will issue an electronic trainee pilot ID card if the trainee pilots fulfils the conditions in Section 3(1)(1), (2) and (4), and has documentation of at least 360 sailing days in polar areas, of which at least 180 sailing days in the Greenlandic economic zone or in Greenlandic territorial waters within the last five years.

*Subsection 2.* The documentation in Subsection 1 must as a minimum include:

- 1) Service at sea in the form of a discharge book or similar.
- 2) Applicant's level of education (master's degree).
- 3) Form for sailing experience in Greenland, which can be found on The Danish Maritime Authority's website.

*Subsection 3.* Sailing experience in Greenlandic waters that does not fully fulfil the requirement in Subsection 1 may, based on a specific assessment, be compensated by additional peer-to-peer training.

*Subsection 4.* For a trainee pilot who has been a certified pilot continuously for the past five years and who has limited or no relevant experience with sailing in Greenlandic waters, the rules in Section 9 apply.

**Section 7.** The electronic pilot trainee ID card is designed in accordance with Appendix 1.

*Subsection 2.* The trainee pilot ID card is issued for one year at a time.

#### Chapter 4

##### *Pilot training requirements*

**Section 8.** The training referred to in Section 3(1)(5) shall include the following:

- 1) Bridge Resource Management and Emergency Training course for pilots.
- 2) Ship manoeuvring for pilots.
- 3) Pilotage law for pilots.
- 4) IMO Polar Code course (Advanced).
- 5) Personal safety training for pilots.

*Subsection 2.* The requirements for the content of the above courses are described in Appendix 2.

*Subsection 3.* The courses mentioned in Subsection 1(1-4) must be completed at least every five years, while the course in Subsection 1(5) must be completed at least every three years.

*Subsection 4.* If a pilot company uses a helicopter for loading or unloading, the pilot company must ensure that the pilot has a valid HUET (Helicopter Underwater Escape Training) certificate or equivalent, so that this can be done safely.

**Section 9.** A trainee pilot who has been a certified pilot continuously for the past five years, but who cannot document sailing in Greenlandic waters, cf. Section 6(1), may be issued a pilot certificate for pilotage area 5, cf. Appendix 3, if the trainee pilot completes the following training programme and passes the theoretical and practical aptitude test:

- 1) Simulator course for pilots in Greenland, including radar training in Arctic conditions. The course must focus on pilotage area 5 and must last at least 10 days.
- 2) Course in Greenlandic ice and weather conditions for pilots.
- 3) Course in the nature of Greenlandic nautical charts for pilots.
- 4) Pilot training, cf. Section 8.
- 5) At least 30 days of peer-to-peer training in Greenlandic territorial waters.

*Subsection 2.* The requirements for the content of the above courses are described in Appendix 2.

*Subsection 3.* The pilot training programme in accordance with Subsection 1 must be approved by the Danish Maritime Authority.

*Subsection 4.* After the pilot certificate has been issued, the first 30 pilotage operations must be carried out with a pilot who has maintained a Greenlandic pilot certificate continuously for the past five years, after which pilot certificates for other pilotage areas can be applied for.

#### Chapter 5

##### *Peer-to-peer training*

**Section 10.** Peer-to-peer training must be conducted by a pilot who is certified to pilot in the relevant pilotage area. Each peer-to-peer training programme must be of a scope that effectively contributes to the trainee pilot or pilot receiving peer-to-peer training gaining the necessary insight into the pilotage area.

*Subsection 2.* Requirements for peer-to-peer training for the different categories of pilotage areas can be found in Appendix 3.

*Subsection 3.* Prior to the issuance of a pilot certificate, the trainee pilot must have completed at least 10 peer-to-peer training sessions in the Greenlandic exclusive economic zone or in Greenlandic territorial waters. However, peer-to-peer training for the acquisition of local knowledge, cf. Appendix 3, shall be conducted in Greenlandic territorial waters.

*Subsection 4.* The Danish Maritime Authority may, based on a specific assessment of the trainee pilot's previous experience, adjust requirements regarding the number of peer-to-peer training sessions. The assessment is based on the following criteria:

- 1) The applicant's general experience of sailing in Greenlandic or polar waters.
- 2) The applicant's experience of sailing in the pilotage area applied for.
- 3) Other relevant factors, including whether the applicant has experience as a pilot.

**Section 11.** The Danish Maritime Authority may authorise a theoretical aptitude test to be taken in a pilotage area without prior peer-to-peer training if it is not possible to have a certified pilot available to perform an upcoming pilotage.

*Subsection 2.* The certificate is only granted if there are five or fewer pilots across all pilot series in Greenland who are certified for the pilotage area in question.

*Subsection 3.* The pilot applying for the certificate must have maintained a pilot certificate continuously for the last five years for the same navigation zone as the pilotage area applied for, cf. Appendix 3.

**Section 12.** In order to receive peer-to-peer training in an applied pilotage area, the trainee pilot or pilot must apply to a pilotage company that is responsible for the pilotage.

*Subsection 2.* Immediately after the enquiry, the pilotage company must assign the next available pilotage for peer-to-peer training in the pilotage area in which peer-to-peer training is required.

*Subsection 3.* The trainee pilot or pilot who wishes to undergo peer-to-peer training must then agree with the shipping company whether it is possible to carry out the desired peer-to-peer training.

*Subsection 4.* The trainee pilot or pilot who receives peer-to-peer training bears the documented expenses directly related to the peer-to-peer training at the ship and pilotage company that is responsible for the peer-to-peer training.

*Subsection 5.* A pilot can only train one trainee pilot per bridge shift. Furthermore, the pilotage company must ensure that peer-to-peer training is equally distributed between the individual trainee pilots on board.

*Subsection 6.* The pilotage organisation may not systematically exclude a trainee pilot or a pilot from another pilotage organisation from participating in peer-to-peer training.

## Chapter 6

### *Aptitude test for obtaining a pilot certificate*

**Section 13.** Before the trainee pilot takes the final, theoretical part of the aptitude test, it is the responsibility of the pilotage company and the trainee pilot to assess whether the trainee pilot has received sufficient peer-to-peer training to be able to carry out pilotage safely.

*Subsection 2.* The practical part of the aptitude test, which is described in Appendix 4, consists of conducting one pilotage in an applied pilotage area and must be completed before the theoretical aptitude test can be taken.

The practical aptitude test is valid as long as a pilot certificate for pilotage in Greenlandic territorial waters is maintained.

*Subsection 3.* The theoretical part of the aptitude test lasts approximately 4 hours and is described in Appendix 4. The theoretical part of the aptitude test must be taken no later than one year after completing the peer-to-peer training in the relevant pilotage area.

*Subsection 4.* The aptitude test is conducted by an examiner who is a pilot certified for the relevant pilotage area and who, as a rule, has participated in the trainee pilot's peer-to-peer training, as well as an external examiner appointed by the Danish Maritime Authority.

*Subsection 5.* The trainee pilot proposes the time and place for the aptitude test and covers any expenses associated with the aptitude test, including preparation, hourly wages and travel costs, etc.

## Chapter 7

### *Measures*

**Section 14.** Anyone who violates Sections 8(4) and 12(2) and (5) shall be sentenced to measures under the Criminal Code for Greenland.

*Subsection 2.* Criminal liability can be imposed on companies, etc., (legal persons) in accordance with the rules in Chapter 5 of the Criminal Code for Greenland.

## Chapter 8

### *Penalty provisions*

**Section 15.** If the person concerned is not resident in Greenland, or their connection with Greenlandic society is of such a loose nature that the conditions for the application of measures are not met, the case may be brought or referred for prosecution in Denmark, cf. Section 7 of the Criminal Code for Greenland.

*Subsection 2.* In the cases mentioned in Subsection 1, violation of Sections 8(4) and 12(2) and (5) is punishable by a fine or imprisonment of up to one year.

*Subsection 3.* Criminal liability may be imposed on companies or other legal persons in accordance with the rules laid down in Chapter 5 of the Criminal Code.

## Chapter 9

### *Entry into force and transitional provisions*

**Section 16.** This Executive Order shall enter into force on 1 January 2024.

*Subsection 2.* Executive Order for Greenland no. 1698 of 11 December 2015 on pilotage, etc., is repealed.

**Section 17.** Pilot certificates issued pursuant to Greenland Executive Order no. 1698 of 11 December 2015 on pilotage, etc., are valid until 1 May 2024.

*Subsection 2.* In order to be allowed to pilot in a pilotage area in its entirety, see Appendix 3, the holder of a pilot certificate must pass the theoretical part of the aptitude test for that pilotage area before 1 May 2024. Pilot fitness tests conducted in 2023 that fulfil the requirements of the Executive Order may be substituted.

*The Danish Maritime Authority, 4 December 2023*

Jan Thorn

/ Kristina Ravn

## Design and content of certificates and ID cards

### *Design and content of the pilot certificate*

#### I. The design of the pilot certificate:

The pilot certificate is designed as pictured here:



#### II. The content of the pilot certificate:

The pilot certificate is written in English.

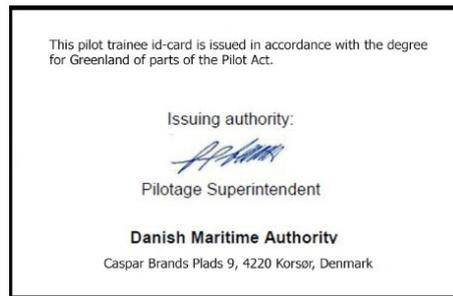
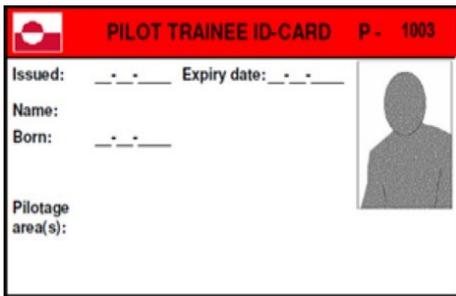
*The electronic pilot certificate will state:*

- nationality flag
- certificate designation
- certificate serial number
- photo of the certificate holder
- issue date
- expiry date
- pilot's name
- pilot's DOB
- pilotage area(s)
- restrictions, e.g. ships of a certain size and draught
- reference to the Pilotage Act, as brought into force by a royal order
- signature, name, address, telephone number and email of the issuing authority

### *Design and content of the trainee pilot ID card*

#### **I. The design of the trainee pilot ID card:**

The trainee pilot ID card is designed as pictured here:



#### **II. The contents of the trainee pilot ID card:**

The trainee pilot ID card is written in English.

*On the electronic trainee pilot ID card, it states:*

- nationality flag
- short description
- serial number
- photo of the cardholder
- issue date
- expiry date
- name and date of birth of the trainee pilot
- pilotage area(s)
- reference to the Pilotage Act, as brought into force by a royal order
- signature, name, address, telephone number and email of the issuing authority

**Requirements for course providers***Education requirements**Bridge Resource Management and Emergency Training course for pilots***The purpose of the course is:**

Train the pilot to exchange information between the pilot and the ship's master before the pilotage begins, as well as during the pilotage, including:

- Pilot Card.
- Planning the voyage, including emergency procedures.
- Mooring and using different types of tugboats.
- Current, tides and traffic conditions.
- Special manoeuvring characteristics of the ship, crew limitations, technical faults and deficiencies.
- Internal and external communication in the relevant language(s).
- Communication with the master and the bridge crew on duty.
- Division of labour on the bridge during pilotage, as well as in emergencies.

To provide the pilot with knowledge and understanding of:

- Mental strengths and limitations.
- Language and cultural barriers.

**The course covers the following topics:**

- Simulator training in a full mission simulator, including planning, briefing, communication and collaboration.
- Emergency and crisis management training using simulator exercises, including the ability to adapt to unexpected situations.
- Communication and the relationship between the crew and pilot.
- Physical/mental limitations and strengths.

**Implementation:**

The course is only for pilots and trainee pilots and must be completed at least every five years, cf. Section 8(1).  
3. On passing the test, a certificate is issued that the course participant has passed the course satisfactorily in theory and practice.

**References:**

IMO Resolution A. 960(23), Subsections 5.3, 5.4 and 5.5.

**Ship manoeuvring for pilots****The purpose of the course is:**

To train the pilot in basic/elementary ship manoeuvring techniques using pilotage in a relevant sailing area.

**The course covers the following topics:**

Theoretical review of:

- Manoeuvre options and strategies.
- Stopping distance.
- MOB situations.
- Constant swivel speed techniques.
- Use of thrusters.
- Ships with azimuth propulsion.
- Helm, types and effects.
- Propeller(s), types, effect, rear power, double-propeller vessels.
- Port manoeuvring with propellers and multiple rudders.
- Banking effect.
- Overhaul.
- Encounter with other ships, including ship-to-ship interaction effect.
- Sailing in different weather conditions, including wind, current and wave power.
- Anchoring manoeuvres.
- Instrument navigation in poor weather conditions and during night sailing.
- Squat effect.
- Under Keel Clearance.
- Pivot point.
- Hydrodynamics.
- Manoeuvring ships with significant windage, such as cruise ships.
- Use of tugboats, including escort towing.

- POD and Joystick/DP systems.

Sailing exercises that support and illustrate the above theory elements, including

- Port manoeuvring with various relevant ship types and equipment.
- Sailing and docking in ports under different weather conditions (wind, current and waves).
- Sailing under the influence of hydrodynamic effects such as the bank effect.
- Docking.
- Squat effect and passing other ships.
- Ship manoeuvring with both fixed pitch and variable pitch propellers.
- Use of tugboats.

### **Implementation**

The above sailing exercises and ship manoeuvring techniques must be performed in a pilotage area relevant to the pilot. Training can be conducted in a full mission simulator.

The course is only for pilots and trainee pilots and must be completed at least every five years, cf. Section 8(1). 3. At the end of the course, a certificate is issued confirming that the course participant has passed the course satisfactorily in theory and practice.

### **References:**

IMO Resolution A. 960(23), Section 5.5.

## **Pilotage law course for pilots**

### **The purpose of the course is:**

To familiarise pilots with relevant international and national laws, rules and regulations.

### **The course covers the following topics:**

- The structure of legislation and authorities.
- Order on the entry into force for Greenland of parts of the Pilotage Act and associated executive orders, etc.
- Duties of the pilot.
- Pilot duty.
- Obtaining a pilot certificate and pilotage exemption certificate.
- Pilot's responsibilities - including penalties.

## **Implementation**

The course is only for pilots and trainee pilots and must be completed at least every five years, cf. Section 8(1).  
3. At the end of the course, a written certificate is issued confirming that the course participant has passed the course satisfactorily in theory and practice.

## **References:**

IMO Resolution A. 960(23), Sections 5.5 and 6.3.

## **Personal safety training for pilots**

### **The purpose of the course is:**

To train pilots in personal safety, personal survival at sea techniques, emergency and first aid procedures including CPR, resuscitation and hypothermic preventative measures. Furthermore, pilots must be familiar with the risks and precautions in connection with the transfer of persons and be able to act appropriately in man-overboard situations and evacuation.

### **The course covers the following topics:**

#### **First aid:**

- Contact Radio Medical.
- The four main points of first aid.
- Life-saving first aid, including the use of defibrillators.
- Cardiovascular diseases.
- Heart attack/heart spasm.
- Drowning and hypothermia.
- Crush and fall injuries.
- Stopping bleeding.
- Communication with injured people.

#### **Maritime safety:**

- Personal rescue equipment, including emergency transmitters.
- Risks and precautions when transferring people.
- Precautions in case the pilot falls overboard, including the possibilities and limitations of the vessel in relation to salvage.
- Water adaptation/suit familiarisation when wearing personal equipment.
- Survival techniques in water.

- Helicopter hoist.
- Capsize exercises.
- The possibilities and limitations of the life raft.
- Evacuation methods from larger ships, including evacuation chute.
- Summarising an evacuation drill.

### **Implementation**

To ensure that the pilot is familiar with the possibilities and limitations of their own equipment, the practical part of the course should be carried out in the same type of equipment that the pilot uses.

The course is complete when the participant has demonstrated knowledge in a practical exercise:

- Travelling on a pilot boat.
- Behaviour related to capsizing in open vessels.
- Individual and collective survival techniques in water.
- Fleet entry, stopping and turning, where the fleet size is equivalent to that used by the pilotage company is utilised.
- Behaviour when rescuing a person from the water, both as the rescued and rescuing party, using a fleet size similar to that used by the pilotage company. The exercise is carried out with commonly used rescue tools, such as a cradle and net.
- Individual and collective behaviour during the summary evacuation drill. The evacuation exercise will summarise the practical elements of evacuation from ship to water, water to raft and raft to helicopter.
- The acquired theoretical knowledge is demonstrated through a written test. At least 80% of the answers must be correct

The course is only for pilots and trainee pilots and must be completed at least every three years, cf. Section 8(1).  
3. Upon passing the exams, a certificate is issued stating that the course participant has passed the course satisfactorily in theory and practice.

In the event that the course participant does not pass the above-mentioned tests, the course provider and the course participant will jointly determine a plan for the further course of action with a view to satisfactory completion of the course within six months.

### **References**

IMO Resolution A. 960(23), Section 5.5.

## **Greenlandic ice and weather conditions course for pilots**

**The purpose of the course is:**

To train pilots in Greenlandic ice and weather conditions in order to ensure a sufficient level of knowledge of the special ice and weather conditions that apply when sailing in Greenlandic waters.

**The course covers the following topics:**

Greenlandic ice and weather conditions with a focus on the following:

- Information on ice for voyage planning
- Maritime climatology, meteorology and oceanography in Arctic waters
- The technology behind generating ice and weather information for navigation in Greenland
- Limitations of satellite and ice information
- Practical application of access to ice information
- Analysing satellite data showing ice conditions in different areas

**Implementation:**

To ensure that the training provides a sufficient level of knowledge of the special ice and weather conditions that apply when sailing in Greenlandic waters, it is required that:

- The training is organised in such a way that it includes both a theoretical review of the above topics, as well as exercises that train the pilot to apply the information received in practice.
- The training can advantageously be organised based on the information that the pilotage company already has access to when carrying out pilotage in Greenland.

At the end of the course, a written certificate is issued confirming that the course participant has passed the course satisfactorily in theory and practice.

**Course on the nature of Greenlandic nautical charts for pilots**

**The purpose of the course is:**

To educate pilots in the nature of Greenlandic sea charts to ensure a sufficient level of knowledge to navigate safely using the available charts in Greenland.

**The course covers the following topics:**

The nature of Greenlandic nautical charts with a focus on the following:

- Nautical surveying and mapping of Greenlandic waters
- The technology behind marine surveying in Greenland
- Quality and accuracy in depth data
- CATZOC
- ENC coverage, including data limitations when navigating based on ENC with basic content
- Limitations in geometric accuracy
- Positioning information in nautical charts, including datum, topography, including coastline and hydrography
- GNSS, including GPS position accuracy in Greenlandic waters vs. chart accuracy

- Paper charts vs electronic charts (e.g. inconsistencies in depth information)

**Implementation:**

To ensure that the training provides a sufficient level of knowledge about the nature of the Greenlandic seascapes, it is required that:

- Training is provided in the nature of the nautical charts for a representative sample of Greenland, including all nautical charts in pilotage area 5.
- The training is organised in such a way that it includes both a theoretical review of the above topics, as well as exercises that train the pilot to apply the information received in practice.
- The training can advantageously be organised based on the information that the pilotage company already has access to when carrying out pilotage in Greenland.

At the end of the course, a written certificate is issued confirming that the course participant has passed the course satisfactorily in theory and practice.

### **Simulator course for pilots in Greenland**

**The purpose of the course is:**

To provide the applicant with experience of sailing in specific areas of Greenland through simulator training in order to ensure an acceptable level of specialised knowledge and experience in the geographical pilotage area applied for.

**The course covers the following topics:**

- Simulator training in the areas applied for, including radar training in Arctic conditions.

**Implementation:**

To ensure that the exercises provide a sufficient level of insight and experience in the geographical pilotage area applied for, it is required that:

- The exercises are organised in a full mission bridge simulator.
- The exercises are organised as simulations in the specific Greenlandic areas for which pilot certificates are applied for.
- The exercises must take place under different current, wave and wind conditions.
- Exercises should be conducted in a variety of light and visibility conditions, including fog and haze, daylight, darkness, and sailing against the rising or setting sun.
- Icebergs and ice floes are realistically simulated in terms of appearance, drift and radar reflection.
- An ice projector can be used.
- There is training in the use and setup of radar to detect ice, icebergs and ice floes.
- Radar is used for navigation with parallel indexes where applicable.

- The exercises should focus on the parts of the pilotage area where navigation is most difficult, but they should also give the trainee pilot an insight into the geographical pilotage area as a whole.
- The total duration of one day's simulator training must be at least six hours.

As a minimum, the course provider must be approved to organise the following courses:

- Course for service in ships covered by the Polar Code (Basic training for ships in polar waters and Management of operations for ships in polar waters)
- Full Mission bridge simulator course (STCW Reg. II/1 and II/2)

At the end of the course, a written certificate is issued confirming that the course participant has passed the course satisfactorily in theory and practice.

## **Issuing and maintaining pilot certificates**

### **Introduction**

This appendix sets out the sailing frequency requirements for the different categories of pilotage areas.

To be issued or maintain a pilot certificate for a specific pilotage area, the holder must meet the applicable frequency requirements for that pilotage area. Documentation of the sailing frequency must be submitted electronically via the Danish Maritime Authority's reporting system.

The requirement for sailing frequency is assessed based on how many pilots are certified for the area in question and how many pilotage operations are carried out in the area. The goal is to categorise the sailing frequency requirement as high as possible for each pilotage area.

The sailing frequency is defined as a number of peer-to-peer training sessions/pilotages within a five-year period in the following categories:

**Category GL/A** - at least 20 peer-to-peer training sessions/pilotages in the pilotage area, 10 of which can be acquired through simulator training.

**Category GL/B** - at least 10 peer-to-peer training sessions/pilotages in the pilotage area, 5 of which can be acquired through simulator training.

**Category GL/C** - at least 5 peer-to-peer training sessions/pilotages in the pilotage area, 2 of which can be acquired through simulator training.

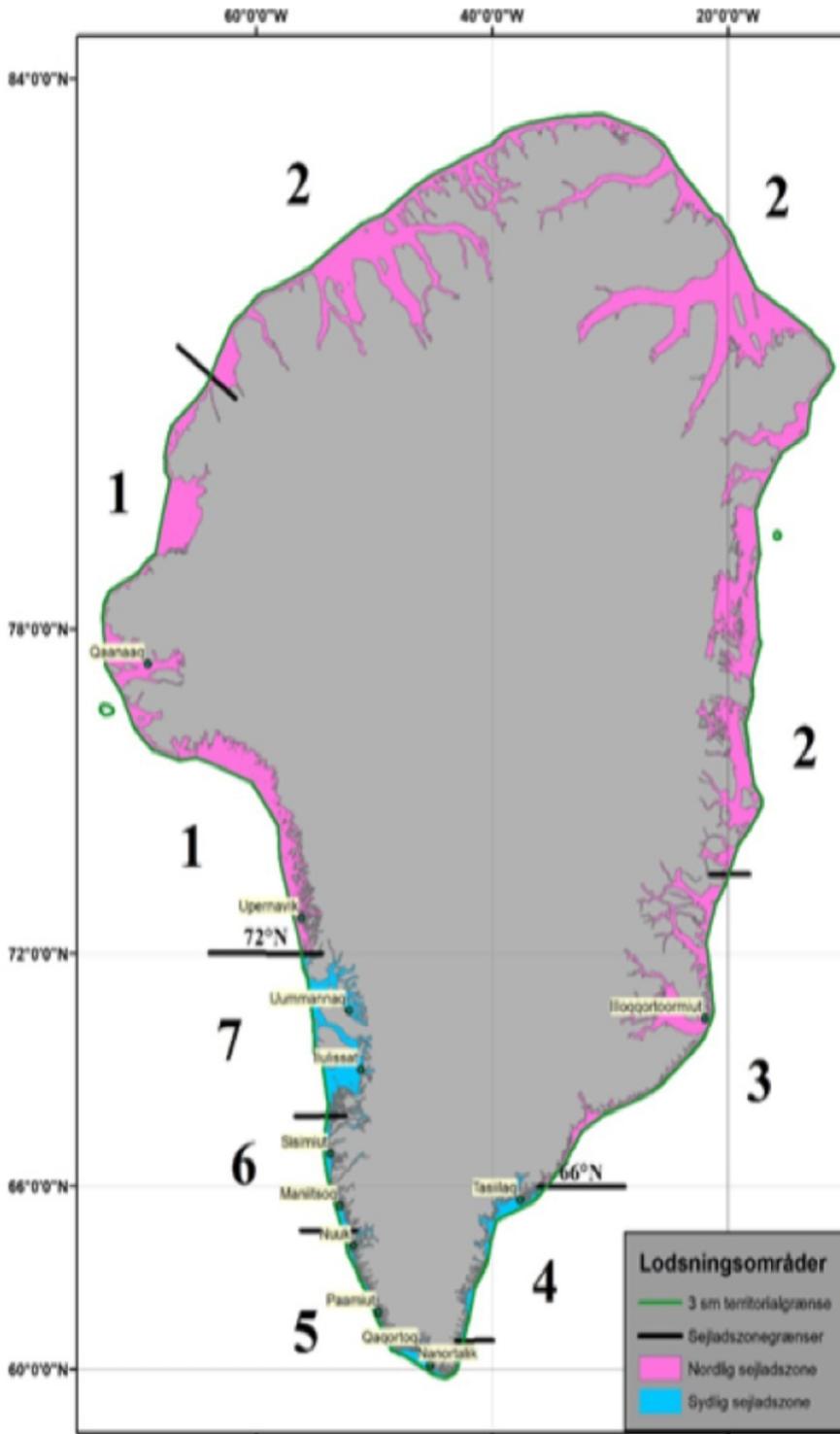
**Category GL/D** - at least 2 peer-to-peer training sessions/pilotages in the pilotage area. To obtain a certificate, the trainee must have performed at least 40 pilotage operations in Greenland within the last five years.

**Category GL/E** - at least 1 peer-to-peer training sessions/pilotage in the pilotage area. To obtain a certificate for the pilotage area, the trainee must have performed at least 80 pilotage operations in Greenland within the last five years, of which at least 10 pilotage operations in the northern navigation zone.

**Category GL/F** - at least 1 peer-to-peer training sessions/pilotage in the pilotage area. The

division of pilotage areas is shown on the map below.

Categorisation of individual pilotage areas, including ports, can be found on the Danish Maritime Authority's website.



Pilotage area 1: West coast

72°00'N - West coast

81°12'N

Pilotage area 2: West coast

81°12'N - East coast

73°31'N

Pilotage area 3: East coast

73°31'N - East coast

66°00'N

Pilotage area 4: East coast

66°00'N - East coast

61°01'N

Pilotage area 5: East coast

61°01'N - West coast

64°40'N

Pilotage area 6: West coast

64°40'N - West coast

68°31'N

Pilotage area 7: West coast

68°31'N - West coast

72°00'N

Ports are specific pilotage areas.

### Pilot fitness test Test

#### requirements for obtaining a pilot certificate:

The aptitude test consists of a theoretical and practical part, where the pilot trainee demonstrates that they have the necessary knowledge to be issued a pilot certificate for a specific pilotage area, cf. IMO Resolution A. 960(23), Section 7.

#### Passing criteria:

The pass criteria for each test requirement is differentiated in the following steps:

1. step - Knowledge

The applicant is familiar with general theoretical knowledge and can summarise general principles and theories.

2. step - Understanding

The applicant can summarise the topic in their own words and by giving examples. The applicant can summarise extracts of the essentials and understand implications and consequences.

It is not expected at this level that the applicant can relate to other material or understand it in depth.

3. step - Application

The applicant can apply the general ideas, theories, principles, procedures and methods in specific new situations.

*The practical part of the aptitude test* is carried out with a pilotage, where the applicant demonstrates their theoretical knowledge in practice by safely completing the planned navigation in one applied pilotage area. The pilot trainee must demonstrate that they can apply their theoretical knowledge to the topics covered in the theoretical examination.

For the practical test, the trainee pilot must be able to demonstrate the following:

- Pilotage preparation, including voyage planning
- Precautions for pilotage sites.
- Safety precautions, including knowledge of
  - the required exit routes and personal safety equipment
  - the role of the pilot regarding emergency situations
- Knowledge of relevant information in the ship's Polar Water Operational Manual (PWOM), including the ship's limitations when sailing in Polar regions.
- Bridge team briefing
  - Special conditions in Greenland
  - Notification systems in Greenland
  - Wind, weather and ice for pilotage
  - The nature of the chart, including significant rocks/reefs and/or obstructions
  - Using an ice projector and identifying ice
- Be part of the bridge team as an element that contributes to improving ship safety, including
  - Communicate clearly and effectively
  - Anticipate the ship's sailing and required advising of the bridge team
  - Use the available means of navigation appropriately, including demonstrating effective use of radar and sailing with parallel indexes
- Correct handover/completion of pilotage

The theoretical part of the aptitude test is carried out by the applicant demonstrating their theoretical knowledge of a specific pilotage area according to the table below.

Test requirements	Pass criteria	Test form
1. Delimitation of the pilotage area	Applicants must demonstrate knowledge of the boundaries of the pilotage area being applied for and be able to confidently show the boundaries on the nautical chart and demonstrate an understanding of where the pilotage sites are located.	The applicant must be able to safely show where the boundaries of the applied for pilotage area are and explain where pilotage sites are located.
2. The International Rules of the Sea (COLREG),	<p>The applicant must demonstrate knowledge of local conditions that affect the risk of collision. Including:</p> <ul style="list-style-type: none"> <li>- Ship traffic in the area, including ferry traffic, recreational vessels, work vessels, fishing vessels and other conditions that are likely to influence navigation.</li> <li>- Traffic separation systems.</li> <li>- Narrow runs or waters</li> <li>- Recommended traffic routes</li> </ul>	The applicant must be able to explain, with the help of nautical charts, the normal traffic patterns that can be expected in the pilotage area and their impact on safe navigation.
2.a. Relevant executive orders and regulations on sailing	The applicant must be able to apply the rules that apply to sailing in Greenlandic waters.	The applicant must be able to explain the rules for sailing in Greenlandic waters, including the use of ice floodlights, safety requirements for sailing zones and special requirements for ships with more than 250 passengers on board.
2.b. Order on the entry into force for Greenland of parts of the Pilotage Act and related executive orders	The applicant must be able to apply their knowledge of pilots' responsibilities and duties. The applicant must be able to explain when ships in the pilotage area are required to take a pilot.	The applicant will be verbally questioned on the relevant rules and must be able to demonstrate a confident understanding of these.
2.c. The Maritime Safety Act	The applicant must have an understanding of the relevant parts of the act.	The applicant must be able to demonstrate their knowledge of the act through the oral test.

3. Buoyage	The applicant must be able to apply their knowledge of the buoyage system in the relevant areas. The applicant must demonstrate an understanding of how emergency information about the buoyage is distributed in Greenlandic waters.	The applicant shall demonstrate knowledge of where inward directional markings change in the pilotage area. The applicant shall demonstrate practical knowledge of how urgent navigational warnings, intelligence and other navigational information is received and where information about these can be found.
4. Lighthouse characteristics, lighthouse angles, fog signals, Racons, audio beacons and other electronic aids, including virtual buoyage/AIS	The applicant must be able to apply their knowledge of vital lighthouses and their characteristics, as well as Racon and virtual signage in the pilotage area.	The applicant must be able to identify the vital lighthouses, etc., in the area and, where relevant, summarise their characteristics.
5. Name, position and characteristics of buoys, beacons, fixed markers and other markings	The applicant must be able to apply their knowledge of the most important navigational buoys, beacons, fixed markings and understanding of other markings in the pilotage area.	The applicant must be able to identify the most important buoys, etc., in the area and, where relevant, reproduce their characteristics.
6. Names and characteristics of shipping lanes, ground, headlands, and other landmarks	The applicant must be able to apply their knowledge of relevant shipping lanes, ground, headlands and other landmarks. Special attention should be paid to conditions that are important for safe navigation, such as suitable land areas for radar navigation, including parallel index navigation.	The applicant must be able to identify and account for relevant shipping lanes, ground, headlands and other landmarks. Special attention should be paid to conditions that are important for safe navigation, such as suitable land areas for radar navigation, including parallel index navigation.
7. Restrictions in the form of bridges and similar obstacles, including the ship's air draught	The applicant must be able to apply their knowledge of the importance of relevant structures for safe navigation within the pilotage area applied for. Among other things, the impact of power lines and airports on max air draught will also be included.	The applicant must be able to show on the chart where the restrictions exist and indicate when safe passage is possible. The applicant must be able to explain how any notification of Air-draught is made.
8. Water depths, tides and other similar factors	The applicant must demonstrate an understanding of the water depths in the area	The applicant must be able to explain the depths in the area and explain

	the relative size of the tide. The applicant must be able to demonstrate an understanding of the current conditions in the area.	which areas are "no-go" areas at a given depth. The applicant must be able to provide the approximate current and tides in the area.
9. General tides, use of tide tables and real-time data and applicable data systems, if available	The applicant must demonstrate an understanding of relevant data systems.	The applicant must be able to explain where information on tides, water levels and other meteorological information can be found. As well as being able to look up relevant material (including websites)
10. Routes, courses and distances	The applicant must be able to apply their knowledge of relevant routes, courses and distances when travelling in the pilotage area	Routes are marked on the chart and courses and distances are indicated. The applicant justifies the choice of route.
11. Anchorage areas, anchoring	The applicant must demonstrate an understanding of designated anchorage areas and the use of anchorage areas under different conditions. As well as understanding places of refuge. The applicant must be able to identify suitable anchorages that are not designated.	The applicant must be able to identify the anchorages on the chart and indicate their use. The applicant must be able to identify and argue in favour of anchorages that are not designated in the nautical chart and explain the procedures for reporting anchorages in Greenlandic waters.
12. Ship manoeuvring for pilotage, anchoring, to and from quay, manoeuvring with and without a tugboat, and in emergency situations	The applicant must be able to apply their knowledge of problematic ship manoeuvring in the area - especially when arriving/departing the quay.	The applicant must demonstrate by example their understanding of ship manoeuvres for arrival, anchoring and emergency manoeuvres. If applicable, also when using a tugboat.
13. Communication and other means of accessible navigational information	The applicant must be able to apply their knowledge of relevant communication channels in the area and where to obtain navigation information.	The applicant must be able to show how to communicate with relevant actors in the area, e.g. ports, VTS, etc., and how to obtain navigation information for the area.
14. Navigation warnings and other relevant information	The applicant must be able to apply their knowledge of how navigation warnings in the area are issued.	The applicant must be able to explain how and via which channels navigation warnings in the area are received.

15. Traffic separation schemes, VTS and navigation rules	The applicant must be able to apply their knowledge of the traffic separation schemes and VTS systems in the area, as well as sailing regulations and recommendations related to these.	The applicant must be able to explain the boundaries of the VTS areas in the area and explain the reporting obligation. Including the content of messages to VTS and means of communication for contact and reporting. Traffic separation schemes are identified in charts and discussed.
16. Bridge equipment and navigation equipment	The applicant must be able to apply their knowledge of bridge and navigation equipment in different types of ships.	The applicant must be able to discuss challenges, such as Know the limitations of older ships, navigation equipment and understand their limitations.
17. Use of radar and other electronic equipment, their limitations and capabilities in navigation and collision avoidance	The applicant must be able to apply their knowledge of radar and other electronic equipment for collision avoidance and navigation.	The applicant must be able to demonstrate knowledge and use of relevant electronic equipment during the examination.
18. Manoeuvrability of the types of ships expected to be piloted, and limitations due to specific propulsion and steering systems	The applicant must be able to apply their knowledge of the manoeuvring characteristics of different ships.	The applicant must be able to discuss how different ships manoeuvre depending on propeller type, etc.
19. Factors affecting ship performance such as wind, current, tide, cargo condition, water depth, bottom, shore and ship interaction, etc.	The applicant must demonstrate an understanding of the factors that can affect ship performance	The applicant must be able to explain the impact of different ship types under different conditions
19. a. Squat effect	The applicant must demonstrate an understanding of the squat effect (and possibly the banking effect) under local conditions at relevant draughts.	The applicant verbally explains the effect and identifies areas where this may be relevant
19. b. Under keel clearance	The applicant must demonstrate an understanding of an appropriate UKC under local conditions and at relevant draughts.	The applicant must be able to specify a suitable UKC for a relevant ship and argue in favour of their choice.
20. Use of and restrictions on the use of different types of tugboats	The applicant must be able to apply their knowledge of different types of tugboats to explain their correct use.	The applicant must be able to demonstrate how the applicant will use different types of tugboats, e.g. arrival/departure.

21. English language skills at a level that makes the pilot able to communicate clearly	The applicant must be able to use their knowledge of English to communicate clearly with all actors - including the crew	If deemed relevant, parts of the exam can be held in English
22. IMO Maritime Standard Phrases	The applicant must demonstrate an understanding of the IMO's Maritime Standard Phrases.	If deemed relevant, parts of the exam can be held in English, e.g. When using the IMO' standard phrases
23. IMO Code for the Investigation of Marine Casualties and Incidents	The applicant must demonstrate an understanding of the IMO Code.	The applicant may indicate relevant methods for information retention and observations for marine casualties and incidents as defined in the Code.
24. Bridge team management, including master-pilot relationship, work procedures and Pilot Card	The applicant must be able to apply their knowledge of BTM and Master pilot relation, work procedure and pilot card.	The applicant must be able to discuss how to maintain good and safe collaboration and how to best exchange knowledge and information.
25. Pollution prevention	The applicant must demonstrate an understanding of relevant pollution prevention in different ship types, as well as the reporting procedure in case of pollution or risk of pollution.	The applicant must be able to account for the vessel's own ability for pollution prevention, and be able to explain how to report incidents with pollution/risk of pollution (including grounding) to the authorities.
26. Emergency and contingency plans	The applicant must be able to demonstrate knowledge of emergency precautions. Including to whom and how to report.	The applicant must be able to discuss precautions in an emergency and explain how to report this.
27. Safe boarding and landing procedures	The applicant must be able to apply their knowledge of correct boarding and landing procedures.	The applicant must show that they can plan for safe boarding and landing.
28. Other relevant knowledge deemed necessary, including		
28.a. Obligation to report	The applicant must be able to apply their knowledge of when and where to report	Through the examination, the applicant demonstrates that they understand the obligation to report and when to report.

28.b. The nature of the chart	The applicant must be able to apply their knowledge of the special conditions that apply to Greenlandic nautical charts	The applicant demonstrates through the examination that the applicant has an understanding of the special conditions that apply to Greenlandic nautical charts.
28.c. Polar Code	The applicant must be able to apply their knowledge of the Polar Code.	The applicant demonstrates through the examination that the applicant has an understanding of sailing in Greenlandic waters.

The above numbering refers to IMO Resolution A. 960(23), Section 7.

**References:**

IMO Resolution A. 960(23), Section 7.