General Information on Pilotage St. Lawrence River and Saguenay River



LAURENTIAN PILOTAGE AUTHORITY

Part 1

Handbook prepared in partnership with *Corporation des pilotes du Saint-Laurent Central* and *Corporation des pilotes du Bas Saint-Laurent*

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Pilot's role and scope of his/her responsibilities including those related to undocking and docking

Whether for a docking manoeuvre, a relief of pilot or any entry in the seaway, the pilot must manoeuvre the ship at all times. This does not prevent the master or officer of a ship from operating the controls of the ship during docking and undocking, provided that this manoeuvre is performed under the active conduct of the pilot and following the instructions of the latter.

Pilotage Act

38.01 (1) No individual shall have the conduct of a ship within a compulsory pilotage area unless they are a licensed pilot for that compulsory pilotage area or a regular member of the ship's complement who is a pilotage certificate holder for that compulsory pilotage area.

(3) A licensed pilot or pilotage certificate holder who has the conduct of a ship is responsible to the master for the safe navigation of the ship.

Reference: Notice to industry - Conduct of the vessel

Condition allowing taking of the conduct of the ship from the pilot by the captain and obligation to report

The master of a ship who has reasonable grounds to believe that the pilot puts the ship in danger may, for the safety of the ship, take the conduct. In accordance with its mission to operate an efficient pilotage service in the interests of safety of navigation, the Laurentian Pilotage Authority requests that a copy of the report be forwarded to the Authority.

Pilotage Act

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38.02 (1) If the master of a ship believes on reasonable grounds that the actions of a licensed pilot or a pilotage certificate holder on board a ship are, in any way, endangering the safety of the ship, the master may, in the interest of the safety of the ship, take the conduct of the ship in place of the licensed pilot or pilotage certificate holder or relieve the licensed pilot from duty on board ship.

(2) The master of a ship who takes the conduct of it in accordance with subsection (1) shall, within three days of taking the conduct of it, file a written report with the Minister that sets out the master's reasons for doing so.

Reference: Notice to industry - Conduct of the vessel



Bridge Team responsibilities

The Master has ultimate responsibility for the safety of the ship, crew and pollution prevention. The Bridge Team is not relieved of its responsibility for the safe navigation following the pilot has boarded. When deciding on the composition of the Bridge Team, consideration should be given to the need for sufficient resources to ensure that at least the following are effectively achieved:

• Operating navigation equipment and providing assistance and advice to the Pilot as necessary;

• Advise the pilot(s) of any restrictions or deficiencies on any of the navigation equipment, machinery or deck machinery which might affect the safe navigation or manoeuvring of the vessel, including gyro errors or any instrument error;

• Monitoring the actions of the Pilot and other members of the Bridge Team;

• Monitoring ship progress against the pilotage plan by conducting track monitoring and regular fixing of the position of the ship, particularly after each course alteration;

• Monitoring under keel clearance (UKC);

• Verifying verbal orders from the Pilot and confirming that they have been carried out correctly;

• Monitoring the rate of turn, rudder angle and RPM indicators when helm and engine orders are given;

• Identifying misunderstandings and ensuring that clarifications are sought immediately if in any doubt; and

• Advising the Master if the safety of the ship is in any doubt.

Reference : 12

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Pilot responsibilities

Throughout the pilotage and berthing, the Pilot should:

• Use the agreed working language and if necessary, the IMO Standard Marine Communication Phrases (SMCP) when directing or advising the Bridge Team;

• Understand the roles and responsibilities of individual Bridge Team members;

• Make use of the information provided during the MPX regarding manoeuvring characteristics;

• Respond to information, advice and questions from the Bridge Team;

• Advise the Bridge Team of any failures or deficiencies, such as the unavailability of tugs, in good time;

• Keep the Bridge Team appraised of pilotage progress and any anticipated need to deviate from the pilotage plan; and

• Inform the Bridge Team of any handover between pilots.

Reference: 12

Pilotage Services in Canadian waters

The following information can be found in Part B of the annual Canadian Coast Guard <u>Notice to</u> <u>Mariners</u>:

- Notice 23: General Information on Pilotage Service
- Notice 24: Navigation Safety Regulations
- **Notice 25:** Information Concerning Pilot Transfer Arrangements on the St. Lawrence River

• **Notice 26:** Additional Guidance on Pilot Transfer Arrangements Concerning Requirements for Canadian Vessels

Health and Safety

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No pilot may be required to pilot or remain on a ship if he or she is of the opinion that his / her health or safety is endangered. The pilot may refuse to pilot a vessel or stay on board if, inter alia, in the following cases:

• When the ship is not compliant with regulations adopted under the Canada Shipping Act, 2001, L. C. 2001, c. 26 pertaining to equipment;

• When the ship's deck is cluttered with cargo, containers or any other material obstructing the pilot's view or restricts him or her in the discharge his or her duties;

• When the bridge windows are not defrosted or the bridge is insufficiently heated to the point of affecting the health of the pilot or render the performance of his or her duties unduly difficult;

• When the ship cannot provide the pilot or apprentice pilot, on request, suitable meals and, when required by the circumstances, a cabin in accordance with his status as an officer;

• When the vessel does not meet or violates the guidelines for safe navigation issued from time to time by the Canadian Coast Guard regarding pilotage.

Reference: 17

Pilot changeover while ship is underway

When your ship is underway on the river, you will have to changeover pilots at the pilotage stations of Quebec, Trois Rivières and St. Lambert. During this operation, transfer of the ship's conduct takes place directly from one pilot to another. Pilots have been trained to ensure that the safe handling of your vessel is maintained throughout this operation. We therefore ask the captains:

• To be present on the bridge during the pilot changeover;

• Not to take over the conduct of the ship from the pilot who is about to leave the ship;

• Not to delay the taking of the conduct of the ship by the pilot who has just boarded;

• To support pilots during this operation.

Note: The information exchange between the captain and the pilot who has just joined the ship will take place when you and the pilot determine that the safety of the ship is not compromised.

Passage plans

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TAs required by Canadian regulations (Art 14 (1) Charts and Nautical Publications Regulations (1995) (SOR / 95-149)) and as specified in regulation V / 34 of the SOLAS Convention, resolution A.893 (21) on Passage Planning Guidelines and section A-VIII / 2, part 2 of the STCW Convention:

Before starting a voyage, the master of a vessel must ensure that it is properly assessed and planned. To facilitate voyage planning in Laurentian Pilotage Authority compulsory pilotage waters, you will find below a generic passage plan with general recommended routes recommended by the Laurentian Pilotage Administration.

Passage Plans: practical guides

It should be clearly understood that a passage plan is only a basic indication of how to proceed and both the master and the pilot should be prepared to depart from it when circumstances so require.

Reference: 2, 3, 4, 6



Under keel clearance

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Adequate under keel clearance must be maintained at all times and for all vessels. Under keel clearance tables are found in Part C of the Canadian Coast Guard's annual <u>Notice to Mariners</u> edition, Notice to Mariners 27C "<u>Under Keel Clearance</u>".

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Vessel Air draft

Passages under various overhead cables and bridges must be made with a safe clearance according to official information published by the Canadian Hydrographic Service (CHS). This information published on CHS navigation charts is for a clear height at the cable center, using Higher high water large tide (HHWLT) as reference. Masters must ensure that the air draft of their vessel is less than the safety clearance, taking into account tide levels. For larger air drafts, arrangements must be made between the ship, the Laurentian Pilotage Authority and the relevant pilot corporation.

Communications

Proper pilotage depends, among other things, on communication effectiveness of and the exchange of information between the pilot, the master and the bridge personnel, and on mutual understanding of their respective functions and tasks. The establishment of effective coordination between the pilot, the master and the bridge personnel, having regard in particular to the various devices and equipment that the pilot is called upon to use, will help to guarantee the safety and speed of the passage.

The communications exchanged on board between the pilot and the bridge watch personnel must be in a language which is common to all the persons taking part in the operation.

The pilot is responsible for radio communications with the Marine Communications and Traffic Services (MCTS), other ships that could interact with your ship, tugs, docking pilots, etc. Communications will be in French. The pilot will explain to the master and the bridge team as soon as possible what was said during these communications to allow the bridge team to monitor further action by the pilot and outside responders.

A VHF radiotelephone must be constantly available to the pilot.

Reference: 3, 5

Competent helmsman available on the bridge

1. The master of a vessel has an obligation to ensure that a qualified helmsman is available at all times and immediately to return to the helm when the autopilot is used in areas of high density traffic, reduced visibility or any other difficult circumstances.

• **Note:** Between Montreal and Quebec, a helmsman must be at the helm at all times.

2. Standard helm orders should be done in accordance with section A2 / 1 of the IMO Standard Marine Communication Phrases (SMCP) book. Exchanges relating to helm orders will be made directly between the pilot and the helmsman, without the intervention of the watch officer. If the latter believes that an order transmitted by the pilot is incorrect, he must then, as soon as possible, check with the pilot the accuracy of this order.

3. The use of automatic steering and cruise control systems such as AutoTrack is prohibited.

Reference: 2, 6, 8

Transit Speed

1. At any time, the transit speed is established at the request of the pilot. It must be adapted to the prevailing circumstances, taking into account, among other things, the Collision Regulations, notices to mariners, notices to navigation, requests for temporary speed reductions aimed at the safety of persons, the protection of marine mammals, infrastructure, structures, ice cover.

2.Special note for the Trois-Rivières section in Montreal:

• From Île aux Raisins to the Ste-Anne-de-Sorel wharf and from the downstream end of Île Saint-Ours to Île aux Vaches, a voluntary speed reduction is in effect, with the approval of the maritime industry, to minimize erosion of riverbanks from wave action. Ships must limit their speed to 12 knots STW, i.e. 10 knots SOG upbound and 14 knots SOG downbound.

During the winter period, the Canadian Coast Guard enforces mandatory speed limits in order to protect ice covers and direct water flow in the shipping channel, in order to facilitate ice movement. On sections determined and announced by the Coast Guard between Trois-Rivières and Montreal, the speed is limited to 9 knots SOG upbound and 11 knots SOG when downbound.

Reference: 3, 14

17

16

14

Main engine and steering gear hydraulic pumps

Everywhere in compulsory pilotage waters under the responsibility of the Laurentian Pilotage Authority:

1. The main engine must be ready for use at all times.

2. If the situation requires, the master or the watch officer should be able to override the load/torque control of the main engine.

3.A minimum of two steering gear hydraulic pumps must be in operation.

Bridge team or member changeover

To ensure follow-up in the transfer of information from one member of the bridge team to the other, we recommend that watch personnel be relieved in collaboration with the pilot to ensure that relief personnel have the necessary information for their tasks.

Reference: 3



Use of tugs

Wind speed and direction, the vessel's maneuvering characteristics, under keel clearance, current velocity and direction at the ship's arrival or departure berth, cranes or loading gantry positions, the presence of other vessels in the vicinity and ice conditions as well as port practices and procedures often will dictate the assistance of one or more tugs.

Reference: 3, 14

Transit with two pilots: Navigation instruments

When two pilots are assigned to a ship, they will share the work according to the specific characteristics anticipated from the pilotage mission. In addition, on certain portions of the compulsory pilotage waters or depending on the circumstances, the two pilots will be called upon to work in tandem.

In order to ensure the safe navigation of your vessel, it is important to give access to radars and other navigation instruments to both pilots.

Industry advisory issued by the Laurentian Pilotage Authority: <u>Radar</u>

Reference: 3





Wide Beam Vessels and Long Vessels - Quebec/Montreal

Part C of the Canadian Coast Guard's <u>Notice to</u> <u>Mariners</u>, Annual Edition, Notice to Mariners 27A "<u>Guidelines for Large and Long Vessels</u>". This notice allows large and long vessels to safely enter the St. Lawrence waterway between Quebec and Montreal, and the North Traverse. It defines as:

1. Wide beam vessel: Wide beam vessel: Wide beam vessel means a vessel whose overall length does not exceed 300.0 meters and whose breadth is equal to or greater than 32.5 meters, but not exceeding 44.0 meters.

2. Long vessel: Long vessel means a vessel whose overall length is between 270.0 and 300.0 meters and whose breadth does not exceed 44.0 meters.

This document contains essential information for the safe management of encounter and overtaking situations involving large vessels and very long vessels in specific sectors of the waterway that have been identified as medium and highrisk sectors.

This Notice and an <u>explanatory diagram</u> are available on the Canadian Coast Guard's <u>MarInfo</u>.

Reference: 9







Transit of vessels with combined breadth not exceeding 96 meters in Traverse du Nord Sector of Île d'Orléans

To improve marine traffic fluidity and ensure safe navigation, the Standing Committee on Marine Safety, co-chaired by the Canadian Coast Guard and Transport Canada, is recommending new guidelines on the transit of vessels with a combined breadth of between 81.3 meters and 96 meters in the segments between buoys K-92 to K112, K-112 to K-132 and K-132 to K-136 in the Traverse du Nord sector of Île d'Orléans.

More details can be found on page 6 of Notice to Mariners 27A in Part C of the Canadian Coast Guard's <u>Notice to Mariners</u> Annual Edition.

Ice presence

Winter ice conditions, particularly in the Saguenay River, can be such that ships can be damaged, even those with an ice rating. In winter conditions, ships must comply with directives contained in the following documents: 20

• "Ice Navigation in Canadian Waters"

• <u>"Winter navigation on the River and Gulf of St. Law-rence"</u>

More information on this subject is also available in the Icebreaking and <u>Web Cameras section</u> of the Canadian Coast Guard's <u>MarInfo</u>.



Laurentian Pilotage Authority's winter navigation policy

As the St. Lawrence River is a freshwater body for much of its length, ice will form every winter, at which time specialized equipment is required and specific safety regulations come into effect.

Removal or replacement of floating aids to navigation

In preparation for the winter freeze-up, the Canadian Coast Guard decommissions lighted "summer" floating aids and replaces them with "spar" buoys, which may not be lighted but will perform better in winter. The removal schedule is published as part of the Aids to Navigation program and is also available on the Marinfo website <u>www.</u> <u>marinfo.gc.ca</u>.

Given the narrowness of the channel and the limited under-keel clearance between Montréal and Québec City, removing or replacing priority lighted buoys has a major impact on night navigation in this zone. As soon as these operations begin, navigational restrictions apply to the departure of certain ships traveling either downbound or upbound in the affected sectors. Either one or two pilots are assigned responsibility for navigation depending on the type of ship and time of sailing. At this point, however, winter navigation conditions are not yet officially in effect.

Double pilotage period

For the Québec City and Les Escoumins zone, including the Saguenay River, double pilotage period begins when ice forms between Québec City and Cap Brulé, with the actual start of the period announced following consultation between the Lower St. Lawrence pilot Corporation and the Laurentian Pilotage Authority.

Beginning of winter

The start of winter navigation conditions is determined by the Laurentian Pilotage Authority in consultation with the appropriate authorities, our pilots and the maritime industry, as stipulated in section 35 (2) of the Regulation. The decision is based, in part, on an analysis of the following factors: air and water temperature, condition of navigational aids, and water level, as well as forecasts.

As soon as the start of winter navigation has been announced, every ship must have two pilots on board. Given that winter navigation conditions are more difficult, the pilots work in tandem. The winter navigation period remains in effect until temperature and ice conditions return to a satisfactory level and summer navigational aids have been repositioned.



Ice charts, escorts, navigation equipment

During the winter navigation period, the Canadian Coast Guard produces ice charts and provides icebreaking escort assistance when needed. Ships visiting our waters should nonetheless have appropriate navigation equipment in good operating condition in order to minimize restrictions imposed on them. This equipment includes:

- One 10-cm and one 3-cm radar, both with gyro interface;
- A heating system on the bridge;
- An AIS connection for the pilots 'sophisticated PPU device a high-tech navigational aid provided to all pilots.

End of restrictions

When all priority lighted buoys in a given zone have been repositioned, departure and transit restrictions are lifted for that zone. This spring navigational aids operation is scheduled and performed by the Canadian Coast Guard and announced to the maritime industry and other stakeholders.

Departure and transit rules

Every year, the Laurentian Pilotage Authority publishes departure and transit rules on its website. These rules are reviewed every spring with the both pilot Corporations of pilots whether navigation can be made more efficient without compromising safety.





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Practical training of apprentice pilots aboard ships

An apprentice pilot holds a class D permit issued by the Laurentian Pilotage Authority. Under subsection 15 (6) the Laurentian Pilotage Authority Regulations, the holder of such a permit is allowed to pursue his practical training in the presence of a fully licensed pilot on any ship. It is essential for the training process of apprentice pilots and for their potential acquisition of a higher-class license that they be given the same latitude as a licensed pilot. This includes the opportunity to work with the ship's crew, including the helmsman. This is in accordance with the pilot training program stemming from the Laurentian Pilotage Authority Regulations and with the recommendations contained in the International Maritime Organization's Resolution A.960 regarding the training of marine pilots.

Successful transit in mandatory pilotage area is a shared responsibility between the pilot, the master and the bridge team. They must all be aware of their respective roles on the bridge and are responsible for establishing efficient communications between all those involved in the pilotage.

Reference: 1, 5

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Smoke-free environment

The Non-Smokers 'Health Act, 1985, c. 15, prohibits smoking in the workplace and obliges employers to ensure that no one smokes in a workspace under their authority. This includes aboard ships that are the workplace of our licensed pilots. Ship crew should be informed of this prohibition, and of the location of the designated smoking rooms and designated smoking areas in compliance with the regulations.

Reference: 16

Transshipment services at the Les Escoumins pilot station

The LPA owns and operates a pilot boarding station in Les Escoumins, as well as pilot boats capable of transporting pilots to and from ships throughout the year; captains, engineers and deckhands, as well as the Station Director, provide a high-quality service to the marine industry.

- <u>Transhipment of passengers at Les Escoumins pilo-</u> tage station
- <u>Conditions leading to a service interruption at Les</u> <u>Escoumins Pilot Station</u>



References

1. Pilotage Act and regulations

2. Canada Shipping Act, 2001, L. C. 2001, c. 26 and its regulations.

3.Recommendations contained in the Transportation Safety Board of Canada's Marine Investigation Report SM9501.

4. International Convention for the Safety of Life at Sea, 1974 (SOLAS)

5.Resolution A.960 of the International Maritime Organization (IMO): recommendations concerning the training of maritime pilots other than deep-sea pilots, issuance of certificates and operational procedures.

6. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)

7.IMO Resolution A.893 (21): Passage planning guidelines.

8. Standard Marine Communication Phrases, OMI.

9. The annual edition of Notices to Mariners, Canadian Coast Guard.

10. Ice navigation in Canadian waters and Winter navigation on River and Gulf of St. Canadian Coast Guard.

11. Sailing Directions, Canadian Hydrographic Services:

• a) St. Lawrence River, Green Island to Quebec and Saguenay fjord (ATL 111).

• b) St. Lawrence River, Cap-Rouge to Montreal and Richelieu River (ATL 112).

12. Bridge Procedures Guides, 5th Ed., International Chamber of Shipping.

13. Guidelines for the Exchange of Information between Masters and Maritime Pilots of the Canadian Maritime Pilots Association.

14. Information exchange documents prepared by the Mid-St. Lawrence pilot Corporation and the Lower St. Lawrence pilot Corporation.

15. Notice to pilots and industry in effect at the Laurentian Pilotage Authority which can be found on our website.

16. The Non-smokers' Health Act, 1985, c. 15.

17. Service agreements between the Laurentian Pilotage Authority and the Central St. Lawrence pilot Corporation and the Lower St. Lawrence pilot Corporation