
C MARINE COMMUNICATIONS AND TRAFFIC SERVICES

Information concerning Pre-Arrival Information Report (PAIR) made pursuant to the Marine Transportation Security Regulations, can be found in Part 3 and 4 of the publication Radio Aids to Marine Navigation (RAMN). <http://www.ccg-ccc.gc.ca/Marine-Communications/Home>

27A Guidelines for the Transit of Wide Beam Vessels and Long Vessels***TRANSIT OF WIDE BEAM VESSELS AND LONG VESSELS IN THE QUÉBEC-MONTRÉAL SEGMENT.*****Definitions:****In the Québec-Montréal segment**

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

Long vessel means a vessel whose overall length is between 270.0 and 300.0 metres and whose breadth* does not exceed 44.0 metres.

* Vessel breadth refers to the “moulded breadth” of a vessel.

Effective date: Spring 2013.

This notice authorizes **wide beam** and **long** vessels to safely navigate the St. Lawrence waterway between Québec and Montréal.

Mariners are requested to refer to the Notices to Mariners monthly edition at www.notmar.gc.ca - Edition 4 and chart VN-301. These documents explain which segments pose a risk.

This notice describes vessel transit conditions for:

- 1) Ice navigation (**G**);
- 2) Meeting in risk areas (**R**);
- 3) Overtaking in risk areas (**D**);
- 4) Anchorage areas (**M**).
- 5) Under keel Clearance
- 6) Double pilotage

1) Ice navigation (G)

G-1) The Corporation of Mid St. Lawrence Pilots (CMSLP) must appoint a liaison officer to work with the Ice Operations Centre in coordinating information on any ice-related risks that may be present during the transit of a **wide beam** or **long** vessel.

G-2) Wide beam and **long** vessels must wait for favorable conditions before proceeding through the waterway between Québec and Montréal, in accordance with the CCG Ice Operations Centre notices or directives. Accordingly, vessels must comply with the following conditions:

- a) For an upbound vessel destined for the Québec-Montréal segment: At Île Blanche, the CMSLP pilot will notify the CCG Ice Operations Centre of the vessel’s estimated time of arrival (ETA) at the Québec pilot station, as well as report on how the vessel is handling in the ice. The CCG Ice Operations Centre will then contact the CMSLP liaison officer and together they will assess the ice conditions, including weakened or unstable fast ice, with a view to determining whether dislodged ice floes could pose problems to shipping during the vessel’s transit between Québec and Montréal;

SECTION C – MARINE COMMUNICATIONS AND TRAFFIC SERVICES

- b) Before a vessel leaves her berth, bound for the Québec–Montréal segment: the CMSLP liaison officer must contact the CCG Ice Operations Centre so that they together may assess the ice conditions, including any weakened or unstable fast ice, with a view to determining whether dislodged ice floes could pose problems to shipping during the vessel's transit in the Québec–Montréal segment.

G-3) *Wide beam* and *long* vessels which, given their operational conditions, appear unable to overcome the forces exerted by the ice, whether due to:

- mechanical problems;
- problems with the propulsion system;
- limitations resulting from the types of propulsion system programming;
- or other,

shall not proceed upriver from Québec before the systems in question are re-established, in order to ensure safe passage at confined areas of the river.

G-4) When there is ice under pressure, as determined by the CCG Ice Operations Centre and the CMSLP liaison officer, ***wide beam*** and ***long*** vessels must proceed under the Québec bridges with the tidal currents.

G-5) In the Lac St-Pierre sector, pilots must give preference to the meeting of vessels during daylight and under good visibility in order to clearly perceive vessel movement, the ice conditions and whether wake from passing vessels could result in the risk of fast ice breaking off.

2) Directives concerning the meeting of vessels in medium- and high-risk areas (R)

Any time, wide beam vessels will have to favor day transit in the section Quebec-Montreal.

R-1) Meetings are prohibited in high-risk areas. The high-risk areas between Québec and Montréal for vessels with a combined nominal breadth of between 65 and 72.6 metres and between 72.61 metres and 88 metres are identified on chart VN-301.

Specific sector: Contrecoeur course

- a) The **Contrecoeur course** sector is identified as a study sector for meetings of ***wide beam*** vessels of a combined nominal breadth of between 72.6 metres and 88 metres. Though, a priori, meetings are prohibited, pilots will be able to meet other ***wide beam*** vessels under favourable conditions. Before their vessels meet, the pilots must notify MCTS of the manoeuvres they have agreed on.
- b) Within 10 days following the meeting, the CMSLP must provide CCG and TC authorities with a report describing the vessels' condition, the passage conditions, the environmental factors, the manoeuvring conditions and all relevant comments on how the vessels handled when they met.

R-2) Medium-risk areas are assessed by pilots to determine whether vessels may be able to safely meet where one or more of the factors listed below apply:

- a) The medium-risk areas between Québec and Montréal for vessels with a combined nominal breadth of between 65 metres and 72.6 metres and between 72.61 metres and 88 metres are identified on chart VN-301. Before their vessels meet, the pilots must notify MCTS of the manoeuvres they have agreed on.
- b) Within 10 days following the meeting, the CMSLP must provide CCG and TC authorities with a report describing the vessels' condition, the passage conditions, the environmental factors, the manoeuvring conditions and all relevant comments on how the vessels handled when they met.

- c) In assessing the risks associated with the meeting of vessels, pilots must take the following factors into consideration:
- 1) **Nighttime navigation:** Darkness makes it more difficult to evaluate distances, background light can be confused with ship's navigation lights and aids to navigation, beacons are fewer and unlit in winter and the effect of wave action from passing vessels on shorelines is difficult to observe;
 - 2) **Visibility:** When vessels meet, the visibility must be sufficient for the pilots to visually assess the approach between the two vessels. Pilots must take into consideration that aids to navigation have a theoretical availability (75% availability) of 4.3 nm and that buoys can be hidden under the ice cover;
 - 3) **Wind velocity and direction:** Under certain vessel load conditions, wind direction and velocity (above 35 knots) can influence vessel manoeuvrability;
 - 4) **Manoeuvring distance:** The pilot must ensure that he/she has sufficient distance to complete the manoeuvre and re-establish the course before the next medium- or high-risk area;
 - 5) **Marine traffic:** The pilot must ensure that there are no other vessels manoeuvring to overtake or meet in the sector and must also consider recreational boating and other nautical activities. All manoeuvre agreements made between vessels that contradict these directives must be communicated to the sector's MCTS;
 - 6) **Vessel characteristics:** The pilot must ensure that the vessel's manoeuvring characteristics and the distance separating the vessels are sufficient to counter the interaction effects between them;
 - 7) **Passage under overhead cables and bridges:** In order to ensure safe passage, the pilot must make certain that he/she has the exact data on the vessel's draught and on the vertical clearance of any electrical lines and bridges at the place of passage;
 - 8) **Towing and dredging operations:** MCTS must provide pilots with information on towing and dredging operations being carried out so that the pilot may adequately assess the situation and plan the vessel's passage;
 - 9) **Channel characteristics:** The pilot must take into consideration the channel configuration, type of bottom, currents and tides.

Specific sectors: Portneuf Bend, Sorel-Tracy Bend and Pointe à la Citrouille

In the context of a meeting with a tanker, the pilot must ensure that the angle of incidence on the tanker's longitudinal axis is under 30° in order to increase the likelihood (in the event of a collision) of a ricochet effect on the broadside of the vessel instead of perforating her double hull.

- R-3) Speed control:** In the context of a meeting of vessels that are subject to speed controls because of their draught, the pilots must adjust the prescribed speed so as to increase the safety margin by 50% more than that prescribed in the CCG under keel clearance table, without, however, exceeding a speed over water (SOW) of 9 knots.
- R-4) Meetings with *long* vessels are prohibited in the following areas (chart VN-301):**
- Sainte-Croix Bend
 - Barre à Boulard
 - Cap Charles Bend
 - Cap-à-la-roche Bend
 - Champlain Bend
 - Bécancour Bend
 - Île de Grâce Bend
 - Bellmouth Bend
 - The segment between Cap Saint-Michel and Île aux Vaches
 - The downstream sector of Tétreauville

3) **Directives on overtaking in medium- and high-risk (D)**

Any time, wide beam vessels will have to favor day transit in the section Quebec-Montreal.

D-1) Overtaking is prohibited in high-risk areas. The high-risk areas between Québec and Montréal for vessels with a combined nominal breadth of between 65 metres and 72.6 metres and between 72.61 metres and 88 metres are identified on chart VN-301.

D-2) Medium-risk areas are assessed by pilots to determine whether a vessel may be able to safely overtake another where one or more of the factors listed below apply:

- a) The medium-risk areas between Québec and Montréal for vessels with a combined nominal breadth of between 65 metres and 72.6 metres and between 72.61 metres and 88 metres are identified on chart VN-301. Before a vessel overtakes another, the pilots must notify MCTS of the manoeuvres they have agreed on;
- b) Within 10 days following the meeting, the CMSLP must provide CCG and TC authorities with a report describing the vessels' condition, the passage conditions, the environmental factors, the manoeuvring conditions and all relevant comments on how the vessels handled when they met;
- c) In assessing the risks associated with overtaking a vessel, pilots must take the following factors into consideration:
 - 1) **Nighttime navigation:** Darkness makes it more difficult to evaluate distances, background light can be confused with ship's navigation lights and aids to navigation, beacons are fewer and unlit in winter and the effect of wave action from passing vessels on shorelines is difficult to observe;
 - 2) **Visibility:** When a vessel overtakes another, the visibility must be sufficient for the pilots to visually assess the approach between the two vessels. Pilots must take into consideration that aids to navigation have a theoretical availability (75% availability) of 4.3 nm and that buoys can be hidden under the ice cover;
 - 3) **Wind velocity and direction:** Under certain vessel load conditions, wind direction and velocity (above 35 knots) can influence vessel manoeuvrability;
 - 4) **Manoeuvring distance:** The pilot must ensure that he/she has sufficient distance to complete the manoeuvre before the next medium- or high-risk area;
 - 5) **Marine traffic:** The pilot must ensure that there are no other vessels manoeuvring to overtake or meet in the sector and must also consider recreational boating and other nautical activities. All manoeuvre agreements made between vessels that contradict these directives must be communicated to the sector's MCTS;
 - 6) **Vessel characteristics:** The pilot must ensure that the vessel's manoeuvring characteristics and the distance separating the vessels are sufficient to counter the interaction effects between them;
 - 7) **Passage under overhead cables and bridges:** In order to ensure safe passage, the pilot must make certain that he/she has the exact data on the vessel's draught and on the vertical clearance of any electrical lines and bridges at the place of passage;
 - 8) **Towing and dredging operations:** MCTS must provide pilots with information on towing and dredging operations being carried out so that the pilot may adequately assess the situation and plan the vessel's passage;
 - 9) **Channel characteristics:** The pilot must take into consideration the channel configuration, type of bottom, currents and tides.

D-3) Speed control: When planning to overtake another vessel, the pilot must obtain the authorization of the vessel to be overtaken. The vessels will adjust their speeds to obtain, ideally, a ratio of 2:1 (twice the speed) in order to minimize the interaction effects between the vessels. However, the overtaking vessel must not maintain a speed that could lead to accelerated shoreline erosion or cause shoreline property damage.

D-4) Overtaking **long** vessels is prohibited in the following areas (chart VN-301):

- Sainte-Croix Bend
- Barre à Boulard
- Cap Charles Bend
- Cap-à-la-roche Bend
- Champlain Bend
- Bécancour Bend
- Île de Grâce Bend
- Bellmouth Bend
- The segment between Cap Saint-Michel and Île aux Vaches
- The downstream sector Tétreauville

4) Directives concerning anchorage areas (M)

M-1) No anchoring of **wide beam** or **long** vessels at the Pointe-aux-Trembles (PAT) anchorage, except under exceptional circumstances.

M-2) No **wide beam** or **long** vessels may use the long-term anchorage areas¹ in the sector of the waterway between Québec and Montréal.

M-3) The holding anchorage areas² authorized for **wide beam** or **long** vessels are the following: Québec/Saint-Nicolas, Trois-Rivières and Sorel/Lanoraie.

M-4) If **wide beam** or **long** vessels use an authorized holding anchorage area, the avoidance radius of the anchorage point must not adversely affect traffic or make it deviate.

5) Directives concerning Under Keel Clearance

In order to maximize the loading, operators and captains of wide beam vessels and long vessels determine the minimum under keel clearance (UKC) by using the minimal authorized speed established at 7 knots in the UKC table. That constrains upbound vessels in Quebec-Montreal sector to transit during a long period at minimum speed because of window passages restrictions. The speed between Quebec and Trois-Rivières can be influenced by the tide and the passage can be completed in 7 hours. But, Trois-Rivières and Montreal sector depends only on water levels; the vessel, not being able to go faster than 7 or 8 knots over the water (SOW) , corresponding to a speed of 5 knots over the ground (SOG) it will take 12 hours to complete the transit. Thus the vessel will cause a congestion of the system for a long period, that makes difficult to coordinate passages and safe meetings because they have to favor transits mainly during daylight and can anchor only in short time anchorages.

The hydraulic pressure on these very wide ships is important, at low speed they are less manoeuvrable and the response time is slower. When we need to push the ship to increase the pressure of water on the rudder to thwart a yaw, the ship inertia is so heavy it takes several minutes to have the wished effect. The operators and the captains should thus plan their transits at a minimum speed of 10 knots SOW , in order to reduce the transit time and allow the ship to be in the system for an acceptable and plannable time while favoring daylight passages and by ensuring a good maneuverability.

In order to ensure a safe conduct and allow the coordination of the transits in opposite directions of vessels in the Saint-Lawrence between Quebec City and Montreal, vessels with beam greater than 32.50 meters (Post-Panamax) shall:

- Conform with the under keel clearance calculation table as per notice to mariners 27C.
- When upbound to a destination upstream Quebec City, ensure to have an under keel clearance permitting a transit at a minimum speed of 10 knots on the water.
- When downbound from a locality upstream Quebec City ensure to have an under keel clearance permitting a transit at a minimum speed of 7 knots on the water.

¹ Long-term anchorage area: Where the ship may wait several days before going alongside.

² Holding anchorage area: Where the ship may wait few hours before going alongside or continue her route. The reasons are diverse (e.g.: wait for a water level window, wait for favorable weather conditions, wait for a favorable traffic window in a restricted sector, availability of tug boats, availability of quays, movement of ships during urgent measures alongside the quay, etc.).

Notwithstanding the preceding, all vessels should be capable to reduce their speed if necessary in order to allow the coordination of the meetings between ships and conform to the voluntary measures of speed reduction.

NOTE: You can preview the segment by following these links:
http://www.marinfo.gc.ca/documents/Post-Panamax/VN-301_mtl-3r_novembre_2016.png
http://www.marinfo.gc.ca/documents/Post-Panamax/VN-301_3r-qc_novembre_2016.png

6) Double pilotage

Vessels, whose breadth is equal to or greater than 32.5 metres transiting in the portion between Quebec and Montreal, are subject to double pilotage by Laurentian Pilotage Authority.

TRANSIT OF VESSELS WITH COMBINED BREADTH NOT EXCEEDING 96 METRES IN THE TRAVERSE DU NORD SECTOR OF ÎLE D'ORLÉANS.

Context:

To improve the fluidity of marine traffic 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 metres** and **96 metres** in the segments between buoys K-92 to K-112, K-112 to K-132 and K-132 to K-136 in the Traverse du Nord Sector of Île d'Orléans.

The guidelines described below are based primarily on the CCG and PIANC (World Association for Waterborne Transport Infrastructure) Guidelines for the Safe Design of Commercial Shipping Channels and consultations with the marine stakeholders involved.

It is important to note that the guidelines below are minimum requirements. Nothing in these rules shall exonerate any vessel, or the pilot, captain or crew thereof, from the consequences of any neglect to comply with these rules or of the neglect of any precaution, which may be required by the ordinary practice of seamen, or by the special circumstances of the case. The role of the Canadian Coast Guard and its officers is limited to providing the information at its disposal in a timely manner.

Definitions:

Breadth: For this pilot project in the Traverse Nord, **vessel breadth** refers to the “moulded breadth” of a vessel.

Abbreviations:

MCTS: Marine Communications and Traffic Services

CCG: Canadian Coast Guard

CLSLP: Corporation of the Lower St. Lawrence Pilots

UKC: Under-keel clearance

Effective Date:

Beginning May 5, 2018, the following measures will apply to vessels with a combined breadth between **81.3 metres** and **96 metres**:

The new guideline on managing meetings of vessels is being implemented as a pilot project for a maximum trial period of 36 months. Adjustments may be made to the guidelines in consultation with stakeholders during this trial period.

After the trial period, the Standing Committee on Marine Safety will evaluate the temporary guidelines in this notice to propose a management and/or regulatory framework for implementing rules on the transit of vessels throughout the Traverse du Nord Sector.

SECTION C – MARINE COMMUNICATIONS AND TRAFFIC SERVICES

Application:

1. Two (2) vessels with a combined breadth equal to or greater than 81.3 metres are **prohibited** from meeting in the navigable channel of Traverse du Nord between buoys K-132 and K-136 and buoys K-92 and K-112.
2. Two (2) vessels with a combined breadth of between 81.3 metres and 96 metres might be permitted to meet between buoys K-112 and K-132 as long as the following minimum requirements are met:
 - Visibility is at least 5 nm so that the pilots can visually assess the approach between the two vessels;
 - Winds are 25 knots or less between buoys K-112 and K-132;
 - A minimum margin of safety/manoeuvrability according to the UKC table in effect is maintained;
 - Real-time data is available from the St-François tide gauge (IO);

The pilot is responsible for ensuring that all these minimum requirements are met and that there is no safety issue prior to meeting another vessel in the segment between buoys K-112 and K-132.

3. Traffic management (meetings between ships):
 - The MCTS officer shall provide information about marine traffic in a timely manner so that pilots can make the necessary arrangements to satisfy the guidelines on meetings of vessels.
 - The vessels involved shall notify the MCTS Officer of the agreed procedure that has been taken, to share appropriate information with relevant traffic.

If the breadth of one of the vessels exceeds 50 metres, with a combined breadth not exceeding 96 metres, the bridge crew and pilot will manage the meeting conditions utmost carefulness.

Guidelines on meetings

- To ensure safe passage, meeting places are identified and evaluated by pilots.
- The CLSLP shall provide a meeting report to CCG and TC authorities within 10 days of the meeting. This report must describe the vessels' condition, the passage conditions, the environmental factors, the manoeuvring conditions and all relevant comments on how the vessels handled when they met.
- In assessing the risks associated with the meeting of vessels, pilots must take the following factors into consideration in all seasons:
 - **Nighttime navigation. All seasons.** Darkness makes it more difficult to evaluate distances; background light can be confused with ship's navigation lights and aids to navigation. In addition, beacons are fewer and unlit in winter.
 - **Visibility.** When vessels meet, the visibility must be at least 5 nm for the pilots to visually assess the approach between the two vessels. Pilots must take into consideration that aids to navigation have a theoretical availability (75% availability) of 4.3 nm and that buoys can be hidden under the ice cover.
 - **Wind velocity and direction.** Under certain vessel load conditions, wind direction and velocity can influence vessel manoeuvrability.
 - **Manoeuvring distance.** The pilot must ensure that he/she has sufficient distance to complete the manoeuvre and re-establish the course.
 - **Marine traffic.** The pilot must ensure that there are no other vessels manoeuvring to meet in the sector and must also consider recreational boating and other nautical activities. All manoeuvre agreements that contradict these directives must be communicated to the sector's MCTS.
 - **Vessel characteristics.** The pilot must ensure that the vessel's manoeuvring characteristics and the distance separating the vessels are sufficient to counter the interaction effects between them.

SECTION C – MARINE COMMUNICATIONS AND TRAFFIC SERVICES

- **Towing and dredging operations.** The MCTS officer must provide information on towing and dredging operations being carried out so that the pilot may adequately assess the situation and plan the vessel's passage. At the pilot's request, dredging operations must be stopped to ensure safe passage.
- **Channel characteristics.** The pilot must take into consideration the channel configuration, type of bottom, currents and tides.
- **Meeting velocity.** At all times, the velocity of vessels must make it possible to have a UKC that complies with the UKC standards in place given that during meetings of vessels, the squat is significantly increased. A safe speed suited to the conditions and the pilot's assessment must be maintained during meetings.
- Any other circumstance that may affect navigation safety.

Other considerations:

- Priority to navigate in the Traverse du Nord will be given to the deep-draught vessel leaving the St-Jean Anchorage area downbound.

Ice navigation

- The President of the CLSLP must coordinate the departure time of vessels with the Ice Operations Centre by assessing the risks associated with ice conditions.
- Vessels must ensure that conditions are favourable before entering the Traverse du Nord Sector, in accordance with notices or directives from the Ice Operations Centre (CCG). The following conditions must be satisfied:
 - For an upbound vessel destined for the Traverse du Nord, at Île Blanche, the pilot will notify the CCG Ice Operations Centre of the vessel's estimated time of arrival at buoy K-92 as well as report on how the vessel is handling in the ice to determine whether current conditions could cause problems for the vessel and for navigation during transit.
 - Before a vessel leaves her berth, bound for the Traverse du Nord, the CLSLP pilot assigned to the vessel must contact the Ice Operations Centre so that they may assess the ice conditions to determine whether they could cause problems for the vessel and for navigation during transit.
- Vessels which, given their mechanical and operational conditions, appear unable to ensure safe navigation through the ice may not navigate the Traverse du Nord, as long as those conditions prevail.
- In the presence of ice, daylight meetings must always be prioritized to mitigate the risks of nighttime navigation in ice conditions.

Note: In applying these guidelines, it is understood that the pilot and bridge crew must consider all navigation hazards, collision risks and any specific circumstances, including the limitations of the vessels involved, and may therefore have to deviate from these measures to avoid imminent danger. In such a case, or any other incident or situation, the pilot must inform the MCTS officer, who will then forward the information to the other waterway users.