

C Marine Communications and Traffic Services

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<https://www.ccg-gcc.gc.ca/publications/mcts-sctm/ramn-arm/index-eng.html>

27A Guidelines for the Transit of Wide Beam Vessels and Long Vessels

27A.1 Transit of Wide Beam Vessels and Long Vessels in the Québec-Montréal Segment

In this notice, the following definitions are used:

Wide beam vessel means a vessel whose overall length does not exceed 300.0 metres and whose moulded 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 moulded breadth does not exceed 44.0 metres.

This notice, including chart VN-301 “Directives for the Transit of **Wide beam** and **Long** Vessels in the St. Lawrence Waterway, 2020 Edition” defines the directives and conditions for the transit of wide beam and long vessels in the Québec-Montréal segment, according to the following sections:

- 1) Ice navigation (**G**)
- 2) Meeting in risk areas (**R**)
- 3) Overtaking in risk areas (**D**)
- 4) Anchorage areas (**M**)
- 5) Under keel clearance (**UKC**)
- 6) Assessment of the manoeuvrability of **wide beam** and **long** vessels
- 7) Other rules for managing **wide beam** and **long** vessel transits
- 8) Double pilotage

Chart VN-301 “Directives for the Transit of **Wide beam** and **Long** Vessels in the St. Lawrence Waterway, 2020 Edition” is available at: <https://www.marinfo.gc.ca/en/Publications/Publications.asp>

1) Ice navigation (**G**)

G-1) Before a transit or leaving a berth in the Québec-Montréal segment, pilots of The Corporation des pilotes du Saint-Laurent Central (CPSLC) must assess the ice conditions, including weakened or unstable fast ice, with a view to determining whether these conditions could pose problems to shipping during the transit of a **wide beam** or **long** vessel.

G-2) **Wide beam** and **long** vessels which, given their operational conditions, appear unable to overcome the forces exerted by the ice, whether due to, amongst others:

- mechanical problems
- problems with the propulsion system
- limitations resulting from types of propulsion system programming / monitoring parameters shall not proceed upstream from Québec before the systems in question are re-established, to ensure safe passage at confined areas of the river.

G-3) When there is ice under pressure, as determined by the Canadian Coast Guard (CCG) Ice Office, **wide beam** and **long** vessels must proceed under the Québec bridges with the tidal currents.

G-4) 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, 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)

R-1) Meetings are prohibited in high-risk areas. The high-risk areas between Québec and Montréal for vessels with a combined breadth of between 65.0 metres and 72.6 metres and between 72.61 metres and 88.0 metres are identified on chart VN-301.

R-2) Medium risk areas identified on chart VN-301 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 breadth of between 65.0 metres and 72.6 metres and between 72.61 metres and 88.0 metres are identified on chart VN-301. Before the vessels meet, the pilots must notify Marine Communications and Traffic Services (MCTS) of the manoeuvres they have agreed on.
- b) For these meetings and overtakings, the pilot and MCTS must provide a report in the established form. The CPSLC will consolidate these two reports in a database.
- c) In assessing the risks associated with the meeting of vessels, pilots must take the following factors into consideration amongst others:
 - Nighttime navigation
 - Presence of lighted buoys
 - Visibility
 - Wind velocity and direction
 - Maneuvering distance
 - Marine traffic
 - Vessel characteristics
 - Passage under overhead cables and bridges
 - Towing and dredging operations
 - Channel characteristics

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 ship side instead of perforating her double hull.

R-3) Maximum vessel speed when meeting

- a) During any meeting that occurs in an area identified by medium or low risk flag (white or yellow), the speed of each of the two (2) vessels shall not exceed a speed over water (SOW) of nine (9) knots.
- b) According to the under-keel clearance (UKC) table in Notice to Mariners 27C, to account for interactions during vessel meetings, the minimum UKC must be increased by at least 50% of the squat value. For purposes of guidance, at a speed of nine (9) knots over the water (SOW), this increase of the vessel squat is about 30 cm.

R-4) Meetings with *long* vessels are prohibited in the following areas (See chart VN-301):

- Québec Bridges
- Sainte-Croix Bend
- Barre à Boulard/Rapides du Richelieu (upstream Q70)
- Cap Charles Bend
- Cap-à-la-roche Bend
- Champlain Bend
- Bécancour Bend
- Cap-de-la-Madeleine Bend
- Laviolette Bridge
- Île de Grâce Bend (Sainte-Anne-de-Sorel)
- Bellmouth Bend
- The segment between Cap Saint-Michel and Île aux Vaches
- The downstream sector of Tétreaultville

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

D-1) Overtaking is prohibited in the high-risk areas identified on chart VN-301. The high-risk areas between Québec and Montréal for vessels with a combined breadth of between 65.0 metres and 72.6 metres and between 72.61 metres and 88.0 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 breadth of between 65.0 metres and 72.6 metres and between 72.61 metres and 88.0 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)** For these meetings and overtakings, the pilot and MCTS must provide a report in the established form. The CPSLC will consolidate these two reports in a database.
- c)** In assessing the risks associated with overtaking a vessel, pilots must take the following factors into consideration amongst others:
 - Nighttime navigation
 - Presence of lighted buoys
 - Visibility
 - Wind velocity and direction
 - Maneuvering distance
 - Marine traffic
 - Vessel characteristics
 - Passage under overhead cables and bridges
 - Towing and dredging operations
 - Channel characteristics

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 is prohibited for **long** vessels in the following areas (See chart VN-301):

- Québec Bridges
- Sainte-Croix Bend
- Barre à Boulard/Rapides du Richelieu (upstream Q70)
- Cap Charles Bend
- Cap-à-la-roche Bend
- Champlain Bend
- Bécancour Bend
- Cap-de-la-Madeleine Bend
- Laviolette Bridge
- Île de Grâce Bend (Sainte-Anne-de-Sorel)
- Bellmouth Bend
- The segment between Cap Saint-Michel and Île aux Vaches
- The downstream sector of Tétreaultville

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) The maximum permitted anchorage time for **wide beam** and **long** vessel in the Québec-Montréal segment is 24 hours. Weather conditions and forecasts must be favorable for the duration of the anchorage.

For **long** vessels, the 24 hours time limit may be extended as needed if conditions permit.

M-3) The anchorage areas permitted for **wide beam** vessels are the following:

- Saint-Nicolas
- Pointe-aux-Ormes, in summer only (1,2,3)
- Trois-Rivières (in front of city TR1 and TR4)
- Lanoraie (L1 to L4) (see M-6 and M-7 below)

M-4) The swinging circle of wide beam or long vessel must not impair or divert traffic

M-5) A pilot's presence is required for a **wide beam** vessel at anchor.

M-6) One of the two anchorages at Lanoraie, L3 or L4, shall be available as a priority when a wide beam vessel is in the Québec-Montréal segment.

M-7) Lanoraie L1 anchorage is only permitted when there are no vessels expected or docked at the oil terminal in Tracy.

5) Directives concerning Under-Keel Clearance (UKC)

5.1 To ensure safe conduct and allow the coordination of the vessel transits in opposite directions in the Saint-Lawrence between Québec City and Montréal, vessels with beam equal to or greater than 32.50 metres (wide beam vessels) shall:

- Comply with the under-keel clearance calculation table as per Notice to Mariners 27C.
- When upbound:
 - Between Québec City and Batiscan, vessels shall have an under-keel clearance that allows for transit at a minimum speed of seven (7) knots over water (SOW).
 - Upstream of Batiscan, vessels shall have an under-keel clearance that allows for transit at a minimum speed of ten (10) knots over water (SOW).

- When downbound between Montréal and Québec City, vessels shall have an under-keel clearance that allows for transit at a minimum speed of seven (7) knots over water (SOW).

5.2 Special cases

If the prevailing water levels during transit do not allow an upbound **wide beam** vessel to meet the UKC standards corresponding to a speed of ten (10) knots over water (SOW), the UKC calculation for **wide beam** vessels with good manoeuvrability (**BM**) could exceptionally be done with a UKC calculation speed of up to seven (7) knots (SOW) under the following conditions:

- a) The pilots check the vessel's draft at Québec and Trois-Rivières;
- b) No meetings or overtaking in the area upstream of Trois-Rivières are permitted for vessels of combined breadth of 65 m or more. In addition, vessels must transit from Québec City at high tide to take advantage of the rising tide's current;
- c) The Montréal Port Authority (MPA) coordinates vessel departures from all ports upstream of Trois-Rivières and when the combined breadth of vessels is 65 metres or more, in collaboration with the MCTS, to ensure that no meetings or overtakings occur in critical areas;
- d) The vessel may not benefit from this condition if there is a vessel case file open with the CCG Alerting and Warning Network (AWN) having as its subject, amongst others:
 - Mechanical problems
 - Trouble with navigational equipment or any other AWN that contains information that could jeopardize navigational safety
 - Departure restrictions following evaluation of the AWN report by the concerned parties

If all of the above-mentioned conditions cannot be met, the vessel shall not be allowed to enter the upbound Québec-Montréal segment.

This exceptional authorization may be suspended by the competent authorities at any time depending on the prevailing information and circumstances during vessel transit.

6) Assessing the manoeuvrability of wide beam and long vessels

The manoeuvrability of **wide beam** and **long** vessels operating in the Québec–Montréal segment must be assessed to determine their behaviour in the channel based on the criteria established in the reports (manoeuvrability assessment). This report must be completed by the CPSLC pilots on the vessel's first voyages.

To adequately assess their manoeuvrability, each vessel must be assessed for a minimum of

- Four (4) round-trip transits for **wide beam** vessels
- Two (2) round-trip transits for **long** vessels
- One (1) round-trip transit for **long** sister ship vessels on regular trade.

Summer departure restrictions for **wide beam** and **long** vessels shall not apply when they have obtained a favourable assessment and are deemed to be of good manoeuvrability (**BM**) by the LPA and CPSLC.

7) Other rules for managing wide beam and long vessel transits

- 7.1 **Wide beam** vessels must favour mostly daytime transits between Québec City and Montréal, depending on weather conditions, traffic and other navigational risk factors.
- 7.2 To ensure the optimal and safe transit of **wide beam** vessels, the Laurentian Pilotage Authority (LPA), in collaboration with CPSLC, must determine and coordinate the passage schedule for these vessels in Québec City.
- 7.3 During hours of darkness, in favourable tide conditions, passage is allowed for upbound **wide beam** vessels until Grondines.

7.4 For downbound **wide beam** and **long** vessels the following departure rules apply:

- Departures must occur during the day, depending on the time of year, so transits or sections of transits are performed during daylight hours. Departure windows can be obtained from the LPA Assignment centre.
- When favourable tides do not match the schedule for several days, some vessels may, exceptionally, be allowed to sail following an agreement between the parties.

In the summer season¹, the above-mentioned rules in 7.4 do not apply when:

- The vessel was evaluated and judged to be of good manoeuvrability (BM) and,
- The pilot's portable unit (PPU) is equipped with a rate of turn indicator.

7.5 For upbound **wide beam** vessels, the following rules apply:

A vessel of good manoeuvrability (**BM**) will be able to perform a transit at a better tide point, without this transit being completed only during daylight hours.

Vessels of good manoeuvrability (**BM**) that regularly transit between Québec City and Montréal can submit an application to the competent authorities (TC, CCG and LPA in collaboration with CPSLC) to obtain a *special* exemption for upbound night time transits.

8) Double pilotage

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

The **wide beam** and **long** vessel transit directives in the Québec-Montréal segment assume that the vessel pilots have taken other factors and conditions into consideration that could affect the vessel's behaviour. Pilots are responsible for the vessel's safety at all times.

1. Reference: Notice to industry issued by the LPA.

27A.2 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.

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.
 - **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.