

## C Marine Communications and Traffic Services

---

### 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, 2019 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” are available at: [Chart VN-301 - 2020 Edition](#)

Wide-beam vessels subject to this notice must submit for every inbound voyage the completed Wide-beam vessel Questionnaire to Transport Canada before arrival at the Escoumins pilot station. The questionnaire can be obtained by writing to [AlerteNMD-AlertNMD@tc.gc.ca](mailto:AlerteNMD-AlertNMD@tc.gc.ca)

#### 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 season<sup>1</sup>, 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.