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-gcc.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

* Breadth means the "greatest breadth" of the vessel as stated in the COLREG Convention 1972 Part A, Rule 3 j). It's the maximum distance (in metres and centimetres) between the outside edges of the shell plating of the ship, including fenders and bridge wing, etc…

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 up bound 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;

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 72.6.1 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 Grâces Bend
- Belmouth 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 72.6.1 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 Grâces Bend
- Belmouth 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 areas[1] in the sector of the waterway between Québec and Montréal.

M-3) The holding anchorage areas[2] 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 up bound vessels in Quebec-Montreal sector to transit during a long period with 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.

[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.).

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 up bound 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 down bound 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

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.

Cancels notships Q801 and Q828
Cancels notship Q0545/2012.
Cancels Notice to Mariners 617(T).

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

Transit of Vessels with Combined Breadth Equal to or Higher than 81.3 metres in the Traverse du Nord Sector of Île d'Orléans

Background/Context:

As a result of the recent passage of post-Panamax vessels en route to ports located upstream from the Traverse du Nord Sector of Île d'Orléans, the Canadian Coast Guard proceeded with a review of Marine Traffic Management Rules applicable to that segment of the St. Lawrence Waterway.

The rules described hereafter are mainly based on the Canadian Coast Guard Guidelines for the Safe Design, Maintenance and Usage of Navigation Channels and on consultations with concerned marine stakeholders.

Effective December 1, 2009, the following measures shall apply to vessels with a combined breadth equal to or higher than 81.3 metres..

1. Passage (encounter) and overtaking of two (2) vessels, each with a combined breadth equal to or higher than 81.3 metres, shall not be authorized in the dredged channel of Traverse du Nord, between Buoys K-136 and K-92.
2. Should a vessel be required to slow down or stop to avoid encountering within the limits of the dredged channel, the vessel with a following current (stern) shall have priority to maintain course (ref. Collision Regulations, Rule 9, Section K).
3. The Marine Communications and Traffic Services Officer (MCTSO) shall inform the vessels concerned sufficiently in advance in order for the vessels to make appropriate arrangements to abide by these measures.
4. The vessels concerned shall inform the MCTS Officers of their agreed arrangements in order for MCTS to advise relevant traffic accordingly.

Note: In applying the above measures, it is understood that the bridge crew shall consider all hazards to navigation, risks of collision and any specific circumstances, such as limitations of the concerned vessels, and may therefore have no alternative but to deviate from the prescribed measures in order to avoid an immediate danger. Should there be sufficient reasons to derogate from these prescribed rules, the Pilot shall inform the MCTS Officer who will immediately relay the relevant information to other waterway users.

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.