

Maritime Information System

Quarterly newsletter

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In response to readers' comments, a regular section, "Monitoring Marine Activity", has been added to the Maritime Information System (MIS) newsletter. From now on, each issue will contain updates on St. Lawrence and Saguenay shipping traffic and cargo volumes, giving readers up-to-the-minute information on these subjects. In addition, each newsletter will continue to feature more detailed analyses on a topic of interest.

This issue presents a brief portrait of shipping traffic between Québec ports. As always, the analyses are based on data from the INNAV data bank and focus on vessel movements. With the collaboration of Québec's five Canadian port authorities, upcoming issues will begin to supply information on cargo transiting the St. Lawrence and Saguenay rivers.

Work on setting up the web interface is going well. Once ready, this tool will give you real time access to key data on marine activity. Our goal is to make this platform accessible by summer 2017.

Happy reading!

Nicole Trépanier, President and CEO
St. Lawrence Economic Development Council, SODES

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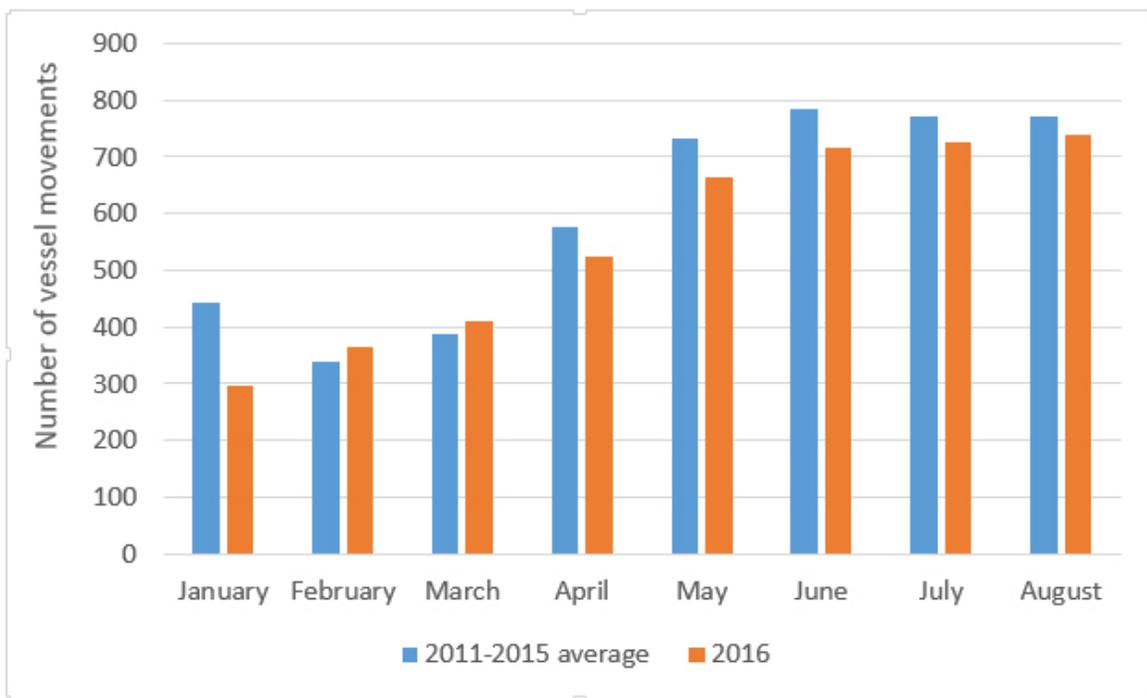
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MONITORING MARINE ACTIVITY

Since early 2016, with the exception of February and March, we can see that the number of monthly vessel movements¹ is lower than the past five years' (2011-2015) average. Overall, shipping traffic has dropped about 7.5% (compared to 2011-2015) since the beginning of 2016.

Figure 1
Monthly vessel traffic on the St. Lawrence and Saguenay



Sources: INNAV, Innovation maritime

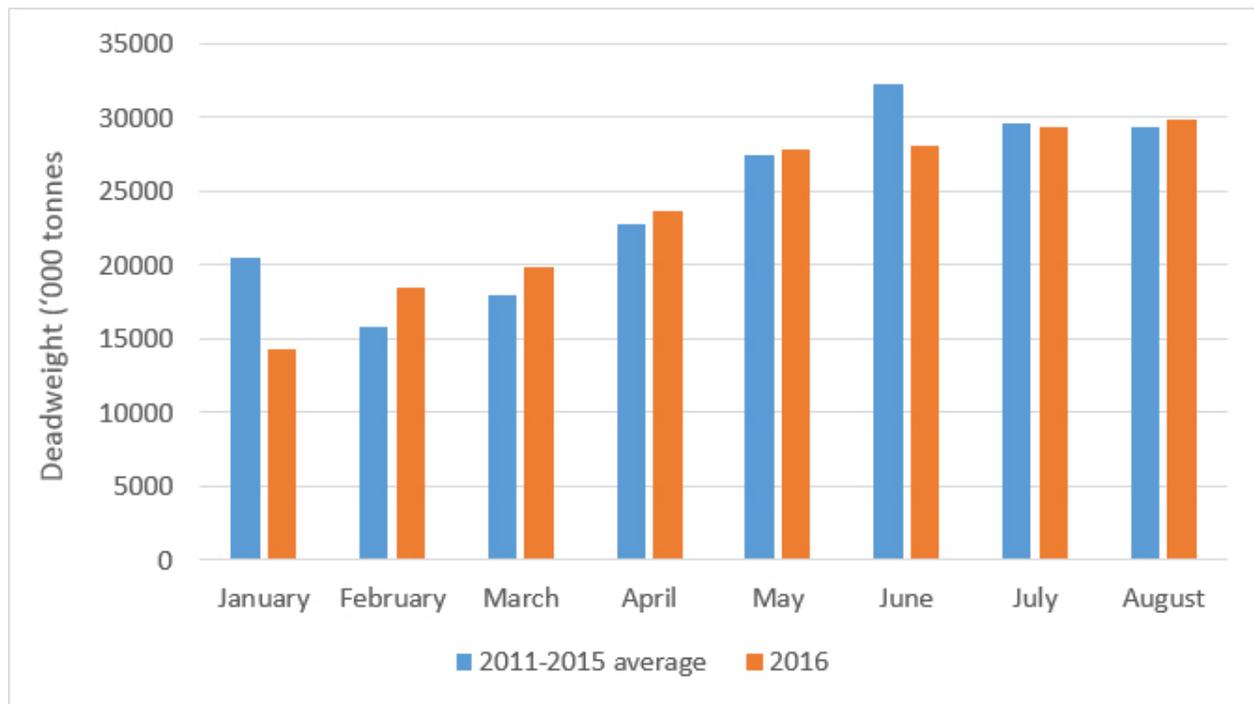
Despite this relative decline in the number of vessel movements, vessels' total transport capacity decreased little over the same period. Figure 2 shows the monthly change in total deadweight² for vessels that have travelled the St. Lawrence and Saguenay since 2011. Note that vessels' total transport capacity from January to August 2016 was lower (-2.2%) than in previous years (2011-2015).

Since early 2016, with the exception of February and March, we can see that the number of monthly vessel movements is lower than the past five years' (2011-2015) average.

¹ Like in previous Maritime Information System newsletters, these analyses are specific to merchant ships (general cargo ships, tankers, Ro/Ro ships, container ships, bulkers) and cruise ships. [See Newsletter No. 1](#) (June 2016) (French only) for methodology-related details.

² A ship's "deadweight" or "dead load" is the maximum load it can carry; this equals its load displacement (ship's total weight under maximum load) minus its light displacement (lightship's total weight, i.e. without cargo or supplies).

Figure 2
Vessels' total monthly transport capacity
(in thousands of tonnes of deadweight)



Sources: INNAV, Innovation maritime

The drop in vessels' total transport capacity is less pronounced than the decrease in the number of visits. This data reflects a progressive increase in vessel size, a trend, confirmed in 2016, that was highlighted in the [October 2016 newsletter](#) (French only).

BRIEF PORTRAIT OF INTERPORT TRAFFIC IN QUÉBEC

Not surprisingly, most Canadian vessel movements occur between the ports of Québec and Montréal on average (Table 1). In 2006-2015, 196 movements/year, on average, were observed between these two ports, accounting for approximately 20% of total Canadian vessel traffic between St. Lawrence and Saguenay ports. Considerable vessel movements also occur between Sorel and Havre-Saint-Pierre (97 movements/year, on average), generally involving bulkers carrying iron ore between the Havre-Saint-Pierre mine and a steel mill in Sorel.

Table 1
Matrix of the number of Canadian vessel movements
between St. Lawrence and Saguenay ports (average in 2006-2015)

		Destination											
		Havre St-Pierre	Montréal / Contrecoeur	Port-Cartier	Québec	Rimouski	Saguenay	Sept-Iles	Sorel	Trois-Rivières	Valleyfield	Other ports	Total
O r i g i n	Havre Saint-Pierre		0.7	0.2				0.3	54.1	0.1		0.5	55.9
	Montréal/Contrecoeur	1.8		24.1	92.0	0.7	3.3	12.0	5.2	7.1	3.1	52.0	201.3
	Port-Cartier	2.4	31.0		3.7			12.3	1.4	0.2	0.2	8.8	60.0
	Québec	3.3	103.7	37.8		22.4	1.3	26.4	9.6	5.9	0.2	29.0	239.6
	Rimouski	0.1	2.9		19.3			0.5		0.3		1.5	24.6
	Saguenay	0.2	1.0	0.2	2.0				2.3	0.2		3.9	9.8
	Sept-Iles	0.8	11.0	3.8	4.5	0.3			0.8	0.7	0.1	7.3	29.3
	Sorel	42.7	3.1	3.8	6.3		0.3	3.7		1.0		7.5	68.4
	Trois-Rivières	0.6	5.4	4.6	11.1			2.4	1.4		0.2	7.8	33.5
	Valleyfield		2.9	0.2	0.6		0.2	0.8	0.3	0.1		5.9	11.0
	Other ports	3.6	57.2	31.9	44.7	1.2	4.2	29.9	3.3	8.7	1.7	45.3	231.7
Total	55.5	218.9	106.6	184.2	24.6	9.3	88.3	78.4	24.3	5.5	169.5	965.1	

Sources: INNAV, Innovation maritime

We can also see numerous vessel movements from the Port of Québec to Port-Cartier (37.8 movements/year, on average) and to Sept-Îles (26.4 movements/year, on average). In both cases, more than 40% of these voyages are carried out by bulkers leaving the Beauport facilities. Between 16% and 30% of these voyages also involve oil tankers leaving from Saint-Romuald for Port-Cartier or Sept-Îles, primarily to supply fuel to mining companies. It is interesting to note that there are fewer voyages from these North Shore ports to the Port of Québec (3.7 and 4.5 movements/year respectively, on average). We can deduce that the majority of Canadian bulkers travelling from the Port of Québec to these North Shore ports reposition³ in order to transport iron ore. The same is true for vessel movements between Port-Cartier and Sept-Îles. The majority of ships travelling these routes are bulkers, which must reposition to load other cargo.

Not surprisingly, most Canadian vessel movements occur between the ports of Québec and Montréal on average (Table 1).

Vessel movements are frequent between Port-Cartier and Contrecoeur (26.4 movements/year, on average), involving Canadian bulkers carrying iron ore to supply a steel mill.

³ Vessel “repositioning” means leaving a port, without additional cargo, for another port where the ship will, in fact, be loaded before leaving for a new destination.

“ Foreign ships also travel between St. Lawrence and Saguenay ports representing about 40% of all movements between them.

“ About 20 return trips are also carried out annually between the ports of Québec and Rimouski, essentially to ship hydrocarbons. The hydrocarbon storage facilities located in Rimouski are the last in the Lower St. Lawrence and Gaspésie regions to be used for local distribution of petroleum products. The Matane and Gaspé facilities still exist but are used mainly for temporary storage rather than local distribution.

Foreign ships also travel between St. Lawrence and Saguenay ports (683 movements/year, on average, in 2006-2015), representing about 40% of all movements between them. Under the Coasting Trade Act, foreign ships may not load/unload cargo between two Canadian ports. However, they may complete their load in various St. Lawrence and Saguenay ports on their way to Europe. Foreign cruise ships, on the other hand, are allowed stopovers in Québec’s different ports.

Table 2
Matrix of the number of foreign vessel movements
between St. Lawrence and Saguenay ports
(average in 2006-2015)

		Destination											
		Havre St-Pierre	Montréal / Contrecoeur	Port-Cartier	Québec	Rimouski	Saguenay	Sept-Iles	Sorel	Trois-Rivières	Valleyfield	Other ports	Total
O r i g i n	Havre Saint-Pierre			0.2	0.5		0.2	0.5	14.1	0.1		1.2	16.8
	Montréal/Contrecoeur	0.4		12.0	71.5	0.1	1.4	1.9	12.3	5.4	3.7	27.4	136.1
	Port-Cartier	1.2	5.3		1.0		0.4	5.3	0.7	0.2		2.1	16.2
	Québec	1.0	90.0	7.1		0.7	6.2	7.8	5.0	5.6	0.7	15.7	139.8
	Rimouski		0.2		0.7		0.1					0.9	1.9
	Saguenay	1.1	6.8	19.7	16.6	0.2		18.4	4.0	6.3	0.4	15.9	89.4
	Sept-Iles	0.5	4.6	3.9	7.0		2.3		2.7	2.3		9.2	32.5
	Sorel	12.5	11.3	9.7	16.2		0.3	0.9		2.4	0.4	4.1	57.8
	Trois-Rivières	0.3	11.6	2.9	8.2		0.9	1.5	7.6		0.9	16.8	50.7
	Valleyfield		1.8	0.3	0.9		0.6	0.1	0.6	0.3		3.6	8.2
	Other ports	0.9	21.1	8.3	23.1	0.9	6.1	6.3	12.4	12.7	1.3	40.3	133.4
	Total	17.9	152.7	64.1	145.7	1.9	18.5	42.7	59.4	35.3	7.4	137.2	682.8

Sources: INNAV, Innovation maritime

Like their Canadian counterparts, foreign ships travel mainly between the ports of Québec and Montréal (162 movements/year, on average). In decreasing order of magnitude, these trips are made essentially by tankers, cruise ships and bulkers. Many of the voyages by international bulkers from Montréal to Québec City are made between grain terminals.



We also observe numerous movements from the Saguenay to Port-Cartier (20 movements/year, on average), Québec (17 movements/year, on average) and Sept-Îles (18 movements/year, on average), generally by foreign bulkers unloading materials for the Saguenay's aluminum smelters and then repositioning to other Laurentian ports to load various ores and leave for other international destinations. The dynamic is similar at the Port of Sorel. Foreign bulkers reposition to the ports of Havre-Saint-Pierre (13 movements/year, on average), Montréal/Contrecoeur (11 movements/year, on average), Port-Cartier (10 movements/year, on average) and Québec (16 movements/year, on average).



In addition to merchant ships, cruise ships also travel between several St. Lawrence and Saguenay ports, representing, on average since 2006, an annual 13% of Laurentian interport movements by foreign ships.



Bulkers generate about 50% of all interport traffic attributed to foreign ships on the St. Lawrence and Saguenay, with 340 movements/year, on average (2006-2015). Foreign tankers carry out an average of 140 movements/year between St. Lawrence and Saguenay ports, 60% of which occur between the ports of Québec and Montréal. Foreign general cargo ships are responsible for about 100 movements/year, on average, between St. Lawrence and Saguenay ports. Unlike tankers, their movements are not concentrated on certain ports.

In addition to merchant ships, cruise ships also travel between several St. Lawrence and Saguenay ports, representing, on average since 2006, an annual 13% of Laurentian interport movements by foreign ships. Of these movements, 55% occur between Québec City and Montréal, showing that a large percentage of cruise packages on the St. Lawrence and Saguenay targets these cities. While they account for only 13% of foreign ships' movements, the very great majority of these movements occur in September and October (33% and 40% respectively, on average).

NEXT ISSUE:

- A portrait of the cargo travelling on the St. Lawrence and Saguenay rivers

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