



The MV Kaministiquia, a Scottish-built bulk carrier, waits in icy Lake Superior to load wheat and soybeans at the Richardsons dock in Thunder Bay, December 2014.

Water rising

Snowstorms, cream puffs and rock 'n' roll on a week-long marine voyage as Great Lakes shipping stages a comeback

BY PETER KUITENBROUWER

THE QUICKEST WAY TO CLEAN OUT MANITOBA

Thursday, Dec. 4, 20:00 — Inside the Thunder Bay, Ont., grain elevator of Richardson International — a castle-scale, century-old complex of poured concrete, ice cold on this December night — men bustle, preparing a load of Prairie grain. Amid a bewildering forest of belts and pipes and riveted boxes, silver cylinders spin great batches of wheat, separating out broken pieces and chaff. A radio on a supervisor's belt squawks over the roar of machinery.

"Chris, you better get over here."

Chris hurries away. Moments later, he turns up at the security guard's booth at the entrance. He has with him a

man with cuts in his forehead, nose and chin, all pouring blood.

"I dropped my laptop," says the injured man. "I gotta find it."

"The cab dropped him off on the railway tracks," says the guard.

"I slipped on a beautiful rock and cut myself," slurs the bleary-eyed man.

"Are you crew on the Kaministiquia?" asks a reporter.

"I'm on the Kiminasti - the Kam, the Koomanas - ti - qui," he stutters.

The MV Kaministiquia is tied up adjacent to the elevator, here on the northwest shore of Lake Superior. It is named for the Kaministiquia River, which flows into Thunder Bay. The ship's owner took out the third "i" because a 13-letter name is unlucky.

She is a 730-foot Great Lakes bulk carrier ship, a giant, rectangular tin can purposebuilt in 1983 at Govan Shipbuilders in Glasgow, Scotland, to fit through the St. Lawrence Seaway. Longshoremen have worked all day to load her with 20,000 metric tonnes of western amber durum wheat, which arrived via Canadian Pacific Railway from Saskatchewan. The Kaministiquia is now waiting on 5,000 metric tonnes of Manitoba soybeans, coming in on the Canadian National Railway. That train is late, so sailors have time to go ashore for a drink - or two - before the ship sails to Sorel, Que., where the grain will be transferred to ocean freighters bound for Morocco, where it will be used to make couscous.

In its heyday, circa 1983, Thunder Bay moved 18 million tonnes of grain. After the railways twinned their westward rails and sent more grain through Vancouver and Prince Rupert, B.C. this port dwindled.

Today, Thunder Bay is coming back. In 11 months to Nov. 30, the port has shipped 7.2 million metric tonnes of grain, a 56% increase over last year.

"The boys have just about had enough," says Patrick

"Paddy" Johnson, head of the Thunder Bay Grain Trimmers, the crews that load the ships. "Early January, we'll still be loading some stragglers. We are more hopeful and excited than we were in quite a few years."

Already 377 Canadian and foreign ships have docked here, up from 280 ships in the same period last year. With Prairie farmers producing record harvests and railways clogged with crude oil, the Great Lakes and St. Lawrence Seaway are suddenly looking again like a relatively economic and efficient way to move bulk cargo to market.

"The railways were so far behind on their mandate," says Gerry Heinrichs, the director of terminal operations for Richardson. "They say, 'Oh, crap, let's just keep pounding the grain to Thunder Bay, because that's the quickest way to clean out Manitoba.'"

Such is the crush of oceanbound "saltie" ships loading grain here that Mr. Heinrichs invented the Gerry Heinrichs International Culinary Award. At the end of the season, he presents the awards to the ship that serves him the most delicious lunch or dinner on board. "Now the agents make sure I get an invite," he says.

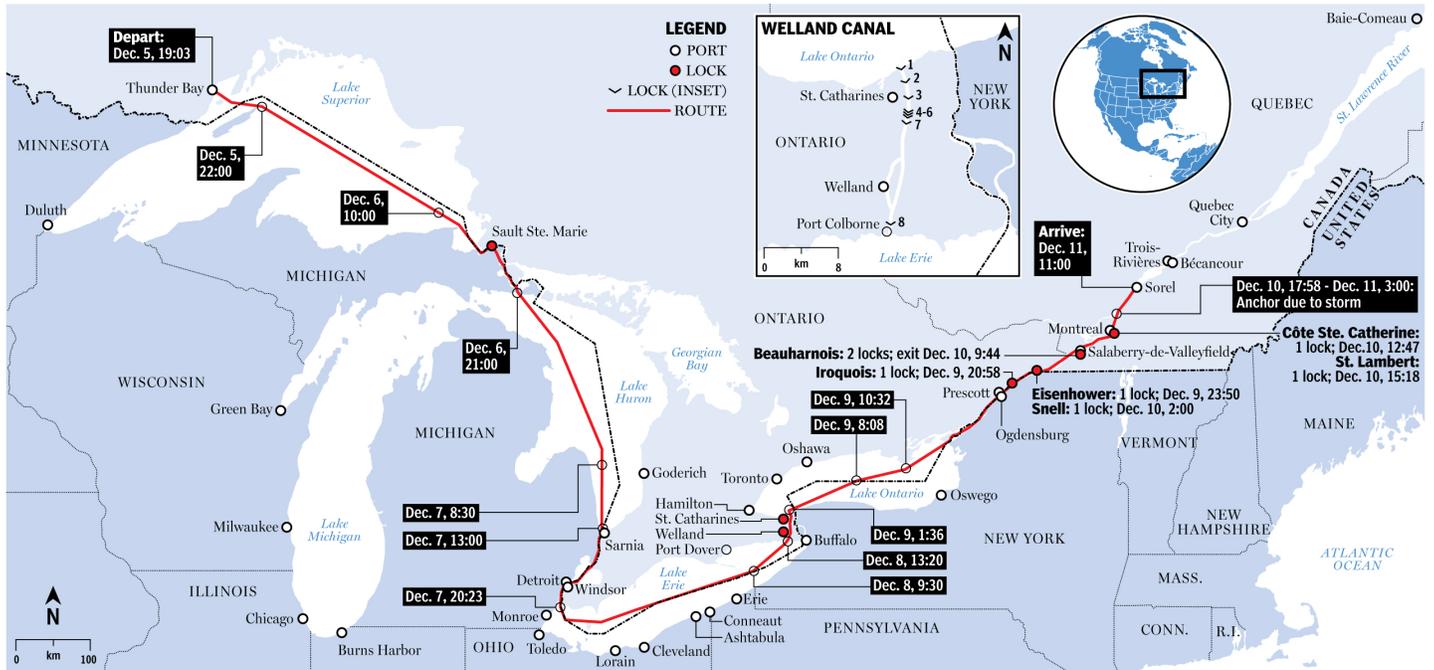
"TIME FOR THE GERITOL GENERATION TO GO"

Dec. 6, 13:15 — The MV Kaministiquia is cruising at 12 knots (about 22km/h), heading southeast on Lake Superior through Whitefish Bay. Having sailed from Thunder

HAULING GRAIN ON THE GREAT LAKES HIGHWAY

The voyage of the MV Kaministiquia: Thunder Bay — Sorel, Dec. 5-11, 2014

THE VOYAGE



SOURCES: ALGOMA CENTRAL CORPORATION, THE ST. LAWRENCE SEAWAY MANAGEMENT CORPORATION, TOMMY TRENT'S ABC'S OF THE SEAWAY, SEAWAY TRAIL, INC.

PETER KUITENBROUWER, JONATHAN RIVAIT, ANDREW BARR & MIKE FAILLE / NATIONAL POST

Bay 18 hours earlier, she is a few leagues from the spot where, as Gordon Lightfoot recounted, another laker, the Edmund Fitzgerald, sank in a gale in November 1975. Today sun pours into the bridge through dozens of windows that deckhand Clint Ford is polishing with Windex. The greatest of the Great Lakes is smooth, and the southern fried rock of the Allman Brothers Band fills the wheelhouse. Captain Cameron Misener is at the helm. For each of the past three days the captain has worn a new Allman Brothers t-shirt with his bushy white beard; he has seen the band in concert more than 200 times. Today, the captain announces, is Greg Allman's birthday. "My hero. He's 67."



Captain Cameron Misener comes from a venerable Ontario marine industry family.

As the Kam, as the crew calls the ship, skims over the calm waters and through chunks of ice, she passes others: the Roger Blough, sailing for Two Harbors, Minn.; the Dutch-registered Vancouverborg; the Peter R. Cresswell of Algoma Central Corp. Capt. Misener goes out to the port bridge deck to offer a bow to the Cresswell's captain, Peter Schultz, whom he calls, "the best captain on the Great Lakes."

Capt. Misener was born in 1959, the year the royal yacht Britannia sailed up the St. Lawrence River carrying Queen Elizabeth II to inaugurate the St. Lawrence Seaway, one of the biggest civil engineering feats of the 20th century. Today the seaway feels in many ways as dated as the Allman Brothers, a relic whose hits are long past, quaint and passé. The Kaministiquia, too, is faded, its cabins lined with fake-wood paneling and furnished with knobby wood furniture suited to a '70s rec room. Its plumbing is somewhat suspect. The linoleum is scuffed in the crew's mess. And rust spreads on the smokestack, next to a huge painting of an aboriginal face inside a ship's wheel - the logo of Lower Lakes Towing Ltd., the Kam's fourth and current owner.

But a funny thing happened as Canada's inland marine industry prepared to sail off into the sunset: it began roaring back to life. Colleges now can't keep up with demand for crew from Canada's ship fleets. The St. Lawrence Seaway Management Corporation is spending \$500-million over five years on new equipment and structural repairs. Great Lakes ship companies are spending \$1-billion for 35 new vessels. And through all this renewal sails the Kam, an undermanned, dogged workhorse that so far has called on Thunder Bay 12 times this year.

"The Lower Lakes guys are the cowboys of the Great Lakes," Mr. Heinrichs says, and he may not be far off. The Kaministiquia had trouble leaving Thunder Bay: the engine room accidentally started the motor full astern, rather than neutral, and the ship began sailing with two crew still ashore. In the wheelhouse, the captain punched the emergency stop button. The captain, angry and exasperated, heaped blame on his older crewmen, some in their senior years. "It's time for the Geritol generation to go," he thundered.

A fourth-generation sailor on the Great Lakes, Capt. Misener, 55, has seen Canada's inland marine industry in its glory days. His grandfather, Robert Scott Misener, in 1912 founded what became Scott Misener Steamships, the largest fleet on the Great Lakes. Robert Misener built a hospital for Port Colbourne, Ont. where his grandson was born.

Capt. Misener was 17 when he first sailed the lakes. At summer's end his mother came to the Welland Canal as the ship entered a lock, and yelled, "Tell Cam to get off the boat and finish high school!" So he did.

Sailing has been hell on his personal life. He has survived three long-term relationships. "I left my first wife after 10 years, after her third affair," he says.

"I've been cleaned out twice. Never again." Financially, he's secure now: he holds over \$1 million in stocks and mutual funds. "TD [stock] split last year," he smiles. "I'm laughing."

With his rock T-shirts and beard, he may look like a rebel, but the crew call their captain a reliable and fair leader. "Nobody goes to bed wondering what's going to happen," says Daryl Bridle, a wheelsman.

Back in the St. Mary's River, the ship winds past lighthouses and shoreline mansions. The captain talks of rock 'n' roll. "The only band I didn't see was Zeppelin and

The Who, and I had tickets for The Who but I couldn't get there because I got shipped out."

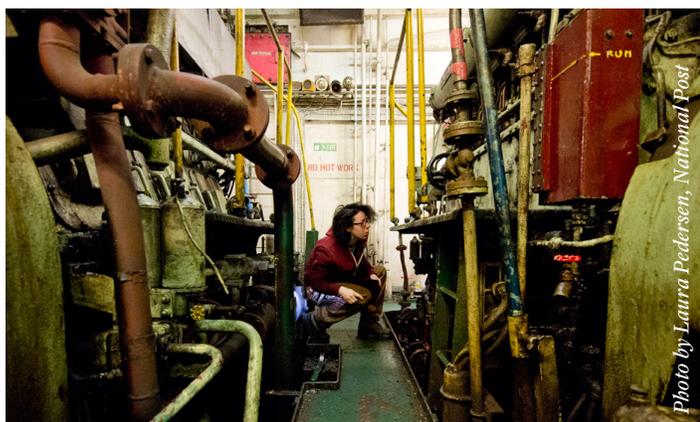
From the stereo wafts the Allman Brothers' song Come and Go Blues. Capt. Misener sings along: "Baby I'm too far gone to turn around."

BEEF TENDERLOIN AND CREAM PUFFS

Dec. 7, 22:30 — In the buzzing control room below deck on the Kaministiquia, a telephone rings. Jessica Clement, the fourth engineer, dressed in once-brown overalls now

"It's kind of like Donkey Kong down here because there are only certain ways you can walk around all the machinery,"

painted in black grease, picks up and has a word with the bridge. She tears the wrapper off a pair of orange earplugs and jogs downstairs across a narrow steel gangway, past the engine to a big block of steel and pipes. She repeatedly pumps a yellow lever, the lube oil hand pump primer, to oil a generator's bearings. The ship will arrive at a shoal in half an hour, and the third mate needs this so he can start up the steering motors.



Jessica Clement, fourth engineer, is a rare woman in the merchant marine

Back in the control room, Ms. Clement calls back to the bridge. "Hey Jason, you're good to go on that." Fifty-thousand metric tonnes of steel and grain is pounding at 12 knots through Lake Erie in the pitch-black December night — and this slight, black-haired, 24-year-old woman from Timmins, Ont. is keeping it moving. "It's kind of like Donkey Kong down here because there are only certain ways you can walk around all the machinery," she explains, as she dunks a cookie into her chocolate milk.

Ms. Clement originally enrolled at Georgian College in Owen Sound, Ont. to study marine navigation. "I found it really dry studying stars," she says, so she switched to

become an engineer. Today she is the only woman in the engine room of a Lower Lakes ship. It isn't easy being a woman in this world. Once, reporting for work in the engine room of another vessel, a senior officer assumed she was a prostitute and tried shooing her off. On the Kam, she seems to fit in well.

"I've always had a really good experience with this company," she says. "It took me a long time to get used to being away from home and missing out on major life events. Now I like it. It's something different every day."

Lower Lakes Towing is a nonunion shop. Algoma and Canada Steamship Lines pay benefits and provide uniforms. To attract talent, Lower Lakes pays well - and hires top-drawer cooks. Chef Tony Sorbara's galley boasts bulk containers of 30 spices; on Dec. 7, for lunch, he serves carrot and ginger soup with seafood Alfredo or pasta carbonara with garlic bread. For supper, as the Kaministiquia glides towards the bright lights of Detroit, the crew sits down to beef tenderloin with tarragon mustard sauce and doublebaked potatoes, stuffed with green onions, garlic, cheese and sour cream, plus tomatoes au gratin. For dessert: cream puffs made from scratch.

Lower Lakes asks its crews to work 40 days on, 20 days off, but it doesn't always work out so neatly. While crossing Lake Huron, Conrad Seymour, the second mate, gets a call from the crewman who is supposed to relieve him. He isn't going to make it. Mr. Seymour, who had already sailed 60 days, will miss Christmas with his three children. He is no longer with their mother.

From the captain down, almost everyone has at least one failed marriage. The chef tried marriage twice. On the plus side, "when you get off you don't think about work at all for three weeks," says Mr. Sorbara, who has become a shark at both poker and pool.

CSL and Algoma run ships with 20 crew. To cut costs, Lower Lakes sails the Kam with 14. (The Edmund Fitzgerald, a ship of about the same size, sailed with 29.)

Having fired the wheelsman who smashed up his face on the railway tracks in Thunder Bay, the Captain is now down a crew member.

"What we're doing here [the staffing] I don't agree with," Capt. Misener says. "I think it's dangerous and I think it's

ridiculous. The company thinks they are being innovative: ‘we can do it with less people.’ At whose expense? My engineer made a mistake [starting the motor in reverse, in Thunder Bay]. If he’d have had an assistant he would not have made that mistake.”

arms equipped with square black suction rings, each the size of a coffee table. The arms move out from the lock wall to the hull of the ship, just above the waterline.

Most of the seaway belongs to the Government of Canada, which operates 13 locks to move a busy traffic of ships

“They have people working in there who have never sailed. How can they troubleshoot?”

Dec. 8, 13:20 — The Kaministiquia ties up at Port Colbourne, Ont. Five crew descend a ladder to the pier to take their leave. Five more climb aboard. Mr. Sorbara, the chef, is heading home to Guelph, Ont., to see his girlfriend. “That’s the best Christmas present ever,” he says. “Thank you, thank you, captain.”

‘ON COURSE FOR THE FUTURE?’

Dec. 10, 08:16 “Are they having trouble sucking on us, Jason?” Wet snow falls heavily. The captain’s sardonic question crackles over a radio clipped to the fluorescent orange winter jacket of Jason Davenport, the third mate, standing near the bow of the Kaministiquia “downbound” in the Upper Beauharnois lock of the St. Lawrence Seaway, about 40 kilometres west of Montreal.

From the lock wall protrude three sets of two yellow steel

between the St. Lawrence Seaway and the Great Lakes (Lake Superior is 183 metres above sea level). Since the seaway opened in 1959, when a ship arrives in a lock, deckhands have thrown cables to linesmen along the dock wall, to steady the ship as water rises or falls in the locks.

Over the past five years the federal Crown-owned Seaway management corporation has invested \$25 million in “handsfree mooring” - a system of steel arms that attach to the ships to stabilize them in the locks. That’s the theory, anyway.

The new technology will “bring about increased operating efficiency,” promises the Seaway’s most recent corporate summary, “On Course for the Future.” The Seaway has budgeted \$95-million in federal government money to make the change.



Photo by Laura Pedersen, National Post

Jason Davenport, third mate: “It’s a six-figure job the day you walk out of college.”

Today, at least, that future is not being friendly. At Beauharnois, Seaway staff radio the Kaministiquia: “Unit 2 is out of service.” Crewmembers resort to the old ways of steel cables. Shouting from the lock wall at Beauharnois, a Seaway employee explains, “We’re still putting the winter tires on them. The rubber on the winter version clings really well.”

Up on the bridge Capt. Misener is upset.

“Don’t tell me when I’m halfway in the lock that you’re going to tie up. We only had the two guys out there,” he says. “I had to scramble two deckhands out there.”

He calls the hands-free machines a waste of money. As we float by he points out the “disgraceful” crumbling, decaying lock walls at Beauharnois. Those battered walls, he says, are where the Seaway should invest. (On the two U.S. locks, Eisenhower and Snell, vertical bands of steel at about one metre intervals protect the walls from ships’ hulls).

“Five years they have spent trying to get the bugs out of these suction cups,” the captain adds.

Speaking from Cornwall, Ont., Terence Bowles, chief executive of the St. Lawrence Seaway Management Corporation, defends the investment in the technology, developed in New Zealand and used at iron ore ports in Australia and the Indian Ocean. Canada is the first country to try suction technology in locks.

“The cups that we use, in 90% of the season, work extremely well,” says Mr. Bowles. “In winter they

become too hard. We need to have a softer kind of rubber compound. We are looking for an all-weather rubber seal.” Of the lock walls, he says, there is a program to keep them in condition. “We think we are up to date.”

Dan McCormick, 68, of Cape Breton Island, is first mate on the Kaministiquia and has sailed on the seaway for over 40 years. He thinks the waterway needs sailors in management.

“They have people working in there who have never sailed. How can they troubleshoot?” The Seaway insists that of the 65 times the Kaministiquia traveled through various locks that use suction technology in 2014, the system failed only when a National Post reporter was on board.

“We are learning from our experiences, and we have put into place measures since your trip, to ensure that ships are processed more efficiently this month, during adverse weather conditions,” Seaway spokesman Andrew Bogora later said in a statement.

Tonnage through the Seaway has slipped in recent years. Even as it hiked tolls 2.5% in 2013, 2.5% in 2014 and 2% in 2015, the Seaway has lost money; it lost \$3.7-million last year. “In the five-year plan [to 2018] we are going to cover our operating costs,” vows Mr. Bowles.

There is some reason for optimism. Right now the seaway is a busy place, with foreign and domestic ships still moving a lot of grain. Overall, traffic is up 5% this year over last year, much of it, apparently, part of this late-season rush. At 4 p.m. on Dec. 9, an announcement from the Seaway crackles



Photo by Laura Pedersen, National Post

Traffic on the Great Lakes is rising after years of decline.



Plotting the 'Kam's' course using nautical maps on the bridge.

over the radio: "There are right now 47 salt water vessels above the St. Lambert Locks. That is up from 22 last year. After today you are designated a wintering vessel. You are not guaranteed to get out of the system."

Dec. 10, 15:18 — The Kaministiquia enters the St. Lambert lock, the easternmost lock on the river. It's the day of the funeral of former Montreal Canadiens captain Jean Beliveau and the flags on the Seaway offices flutter at half-staff. Again, the hands-free mooring isn't working. And the "self-spotting" system, a digital sign designed to tell the captain how far the ship is from the end of the lock, is also malfunctioning. After about 90 minutes in the lock, the Kam prepares to sail eastward.

But rush-hour Montreal traffic flows on the Victoria Bridge to the South Shore. And that bridge needs to rise for the Kam to sail. A voice from the Seaway control room crackles into the wheelhouse of the Kam: "Let's hope the bridge works."

'EVERYTHING IS RUNNING FLAT OUT'

Dec. 10, 16:50 — In the St. Lambert locks, Carl Belley boards the Kaministiquia and climbs to the bridge. He is a pilot, a position made mandatory by the federal Pilotage Act: On the St. Lawrence River, these "pilots," schooled in the shoals and conditions of the river, take control of every single ship sailing east of the seaway locks. Capt. Misener calls them "pirates."

"It bothers me that they make double what we do," Capt. Misener says. "And I have no power now to make any decisions."

Many decision-makers in Canada's maritime industry point to pilots as a pricey tradition that hampers competitiveness. Under one recent rule, if a ship is late more than three hours, the pilot's association charges the owner \$2,500. Pilots bill ship owners by the hour, even when the ship is anchored and the pilot's asleep.

On the Kam, Mr. Belley the pilot peers out from the wheelhouse at the lock wall through a blizzard. Deckhands shovel thick wet snow into the river. "We can't even see the end of the wall," the pilot announces. "This is not safe." Once out of the locks, he orders the crew to anchor the Kam in the St. Lawrence River, just off the Port of Montreal. He heads down to a cabin and goes to sleep.

The captain is furious. "I bring a ship down the frickin' St. Lawrence River in this weather and now I gotta frickin' stop?" For every hour the ship is late arriving in Sorel, the Kam's owners will pay \$2,000 an hour.

For all the antiquated rules such as pilots, which add costs and slow ships, Canada's inland marine industry keeps once again gathering steam nonetheless.

In 2010, the federal government removed a 25% tariff on building ships overseas for the Canadian fleet. Big owners including Canada Steamship Lines and FedNav, both based in Montreal, Algoma in St. Catharines, Ont. and Lower Lakes, among others, have in total ordered 35 ships, worth \$1 billion, from shipbuilders in China. Three metres longer, a metre wider and about 25 cm deeper, they carry 1,000 tonnes more cargo, while consuming 45% less fuel.

On Dec. 13 the MV CSL St-Laurent, a brand-new bulk carrier, set sail from Yangfan shipyard on Zhoushan Island, China, en route to Canada, where she will fly the Canadian flag and operate in the Great Lakes and St. Lawrence River. She should arrive in mid-February. She is the last of six Canadian-flagged lakers CSL has built since 2012.

"They are huge successes for us," says Rod Jones, chief executive at CSL, a century-old private Montreal company owned by the family of former prime minister Paul Martin. "This year our fleet is absolutely fully booked. Everything is running flat out."

Algoma has built three new lakers in China, and ordered five more. "We're on a large fleet-renewal program," says Greg Wight, chief executive at Algoma. "These ships go

faster and consume less fuel. They are Canadian-flagged vessels with Canadian sailors.” Six ships it will keep; the other two it will operate on behalf of CWB, the former Canadian Wheat Board.

The Kam belongs to Lower Lakes, a company Captain Scott Bravener founded in Port Dover in 1994 with one tug and barge. He has grown the business to 16 ships: nine Canadian-flagged and six U.S.-flagged, which, along with grain, haul Ontario limestone into the Detroit river, Saskatchewan potash to Quebec for shipment to Europe, iron ore to Sault Ste. Marie, and road salt from Cleveland to Toronto. New York-based Rand Logistics bought Lower Lakes in 2006; the company trades thinly on NASDAQ. From a high of US\$8.48 in mid-2012, shares have slid to close this week under US\$4. Even so, Mr. Bravener is optimistic.

“It has been better in recent years,” says Capt. Bravener. “The steel industry is rebounding. We are holding our

“Can you be away from friends and family for months on end?”

own.” Meanwhile the Ontario ports of Oshawa, Hamilton, Goderich and Thunder Bay are all investing in improved facilities.

One of the fleets’ biggest challenges is finding sailors. The Kam sailed with three officers in their late 60s.

“I don’t need the money,” says George Michailopoulos, chief engineer on the Kam, who has sailed for 40 years. “Scott [Bravener, the CEO] talked to me and said, ‘Come on George, give me a couple of years until I can find some young guys.’ The money is good.”

Quite so. Mr. Davenport, the third mate, enrolled in marine navigation at Georgian College in Owen Sound in 2011 after his first career as a financial analyst. He’s 31. Scholarships paid most of his tuition for three years of study. “It’s a six-figure job the day you walk out of college,” he says.

The marine industry is struggling to recruit enough sailors, says Colin MacNeil, marine programs co-ordinator at Georgian College.

“There are quality jobs that pay really, really well,” he says. But they are not for everyone. “Can you be away from friends and family for months on end?” he asks.

Dec. 11, 11:00 — The MV Tim S. Dool, a Saint John-built bulk carrier that belongs to Algoma, has sailed from the

Richardson’s elevator in Sorel, opening up a spot for the Kam to unload. On shore, a payloader, typically used to move grain, pushes snow into the river. Using a swing boom, two sailors execute a kind of Tarzan move to land on the snowy dock.

They catch ropes and tie up the big old ship.

At the bow, the first mate, Mr. McCormick, can’t get his cigarette to light in the snow and wind; John Roe, a wheelsman, hands him his, already burning, and Mr. McCormick lights it off the glowing red end.

It’s the last trip through the seaway this year for the Kam. After six days sailing, it will hand off its grain to other ships here, who will take it to its final destination, Casablanca.

Mr. McCormick has made up his mind which holds will be unloaded first. With the ship having endured a week of late arrivals, malfunctioning infrastructure and expensive penalties, he’s not up for an argument. “We’re starting in

two and five,” he says. “If they don’t like that, they can kiss off. That’s what she’s dipping: two and five.”

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