



\$5.00 U.S.

## ■ CONTENTS

*Superior Adventure* | p. 2

*Great Lakes Leviathans* | p. 10

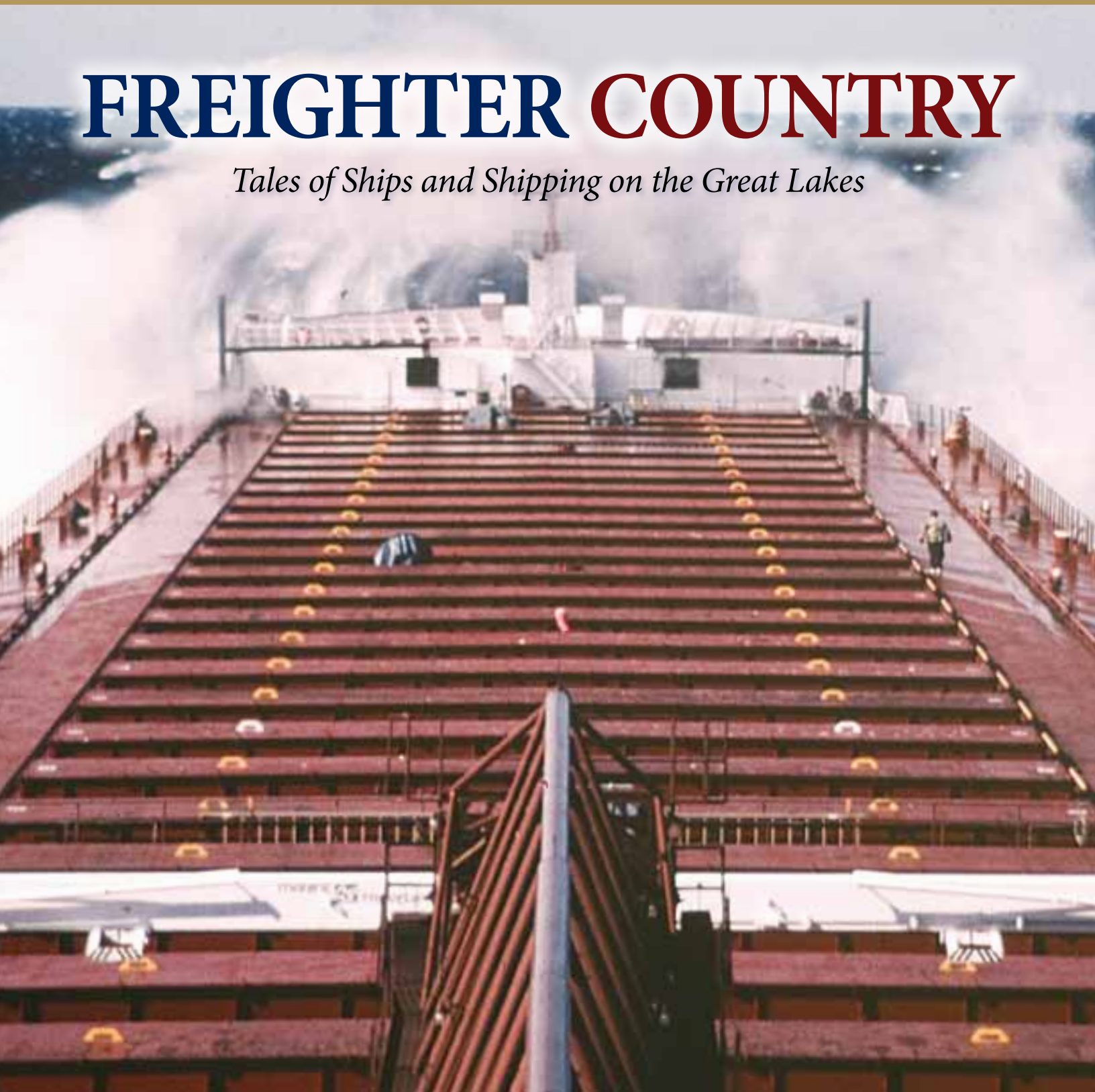
*Detroit — Port City of the Straits* | p. 14

Published courtesy of ISMA Grand Lodge President Capt. Tom McMullen, the Interlake Steamship Company and ISMA Lodge #7 in cooperation with Lodge members Jim Anderson, Frank McBride, Jim Ramsey, Larry Stephenson and Bill Storen.

In Recognition of the 121<sup>st</sup> ISMA Grand Lodge Convention, Detroit, Mich. ■ Feb. 9–13, 2011

# FREIGHTER COUNTRY

*Tales of Ships and Shipping on the Great Lakes*



Cover Photo: Taken by John J. Brian from the pilot house of the *M/V Paul R. Tregurtha* during a gale on Lake Superior in 1995.



*A thousand miles  
aboard a thousand-footer*

# SUPERIOR ADVEN

By Past Com. James L. Ramsey  
and Larry W. Stephenson, M.D.,  
ISMA Lodge #7 Members

The Mesaba turbo-prop dips a wing, and through the window we get our first glimpse of Michigan's Upper Peninsula in early November. It is hilly and dormant, inert with the impending winter which in these latitudes descends like the 101<sup>st</sup> Airborne and remains deployed until nearly Memorial Day. Off to the east is the college town of Marquette, where the Otto Preminger classic, "Anatomy of a Murder," was filmed, and beyond

that our destination, Presque Isle Harbor and mighty Lake Superior—or "Gitchigumi," as the Ojibway natives called it, meaning "big, cold, nasty drink of water." Of all the Great Lakes, Superior is by far the largest, deepest, darkest and most foreboding to mariners. Over 350 documented shipwrecks attest to that. With depths exceeding 1,000 feet and an east-to-west length of nearly 400 miles, Lake Superior is said to contain 10 percent of all the fresh water on the planet — equal to the sum total of the water in all the other Great Lakes combined, plus three additional Lake Eries.

Friend and fellow pleasure boater Dr. Larry Stephenson and I are eager as kids at Christmas. We're here to fulfill what for most boating enthusiasts is the dream of a lifetime. Later this evening we'll meet up with the 1,004-foot-long Great Lakes freighter *James R. Barker*, owned by the Interlake Steamship Company, and spend the next several days hauling 58,000 tons of coal from Superior, Wisconsin, to the Detroit Edison power station at East China, Michigan. Only 12 other freighters this large are found on the Great Lakes. Each one is longer than the





Photos by Jim Ramsey

(Clockwise from Far Left)

The *James R. Barker* salutes a sister ship from the Interlake Company with one long and two short blasts of her horn as the two vessels pass to port.

Co-authors Stephenson (left) and Ramsey (right) with Capt. McMullen (middle).

The Captain on the bridge preparing coffee at dawn.

The *Barker* eases up to the fuel dock at Duluth for a top-off of just 71,000 gallons.

# TURE

*RMS Titanic*, only a bit shorter than a modern aircraft carrier, and capable of hauling prodigious quantities of coal, iron ore, even crushed rock. Despite their size, lake freighters are often referred to as boats instead of ships. For a variety of reasons, hitching a ride on one is next to impossible. We are indebted to Capt. Tom McMullen and Interlake Steamship president Mark Barker for the privilege.

By eerie coincidence, we are going to sea almost 34 years to the day when the 730-foot ore carrier *Edmund Fitzgerald* and her crew of 29 perished in a hellish storm on a similar run

from Duluth. Conditions were so severe, the Soo Locks at the east end of Lake Superior were ordered closed that day because of the high winds and waves washing over the lock gates. The Mackinac Bridge, the nation's third largest suspension bridge 60 miles to the south, was swaying precipitously in winds gusting at 96 mph. And a freighter that was following the ill-fated "Big Fitz" measured wind gusts in excess of 80 mph with wave heights estimated at more than 30 feet.

Not that we're superstitious, but all references to Gordon Lightfoot's

mournful ballad about "The Gales of November" have been stricken from conversation. In our gear bags is enough winter clothing for an Arctic expedition: long johns, down vests, boots, gloves, parkas and so on. As a former Eagle Scout who still lives by the motto, "Be prepared," Dr. Stephenson is wearing a day-glo orange survival jacket with a built-in life-preserver. And ever the physician, he has a stash of seasickness pills large enough to service an entire fleet.

Ah, but we're getting ahead of ourselves. First we must find a liquor store. And after that a decent restaurant



insects, tightening down hatch covers and attending to this and that. At last the din from the conveyor equipment stops, the boom is lowered and secured. Suddenly it is strangely quiet, and we feel only a slight tremor as the James R. Barker's two enormous diesel engines come to life. The great boat clears her cables and — yes — we are moving, underway at last. Soon we are inching forward, gaining speed, now clearing the dock and rounding the breakwater. Gitchigumi, here we come.

Out in the lake, as if on cue, it begins to snow and the breeze gathers until we are heading into five- and six-footers that send waves of icy spray cascading over the *Barker's* forecastle. Even at six feet, the seas are something to be reckoned with, and the long hull soon begins to flex subtly from bow to stern, undulating the way a rug does when you shake it at one end and the wave travels to the far end. The flexing, we are told, is greater when the Barker is unloaded, as it is now. More ballast, in the form of lake water, is pumped in to stiffen the hull. The flex subsides, as does the gnawing in our gut.

One might expect our crossing of Lake Superior that night would produce tales of mountainous seas that set the boat pitching and yawing, with frigid waves breaking over the decks and crewmembers fighting to maintain their footing on the frozen steel plate. But it isn't the case. In truth, as we push west past the Keweenaw Peninsula, the winds subside, and from inside the darkened pilothouse we are mesmerized as the most spectacular sunset in recent memory unfolds slowly along the Michigan shoreline. The panorama of color changes from brilliant red to orange to yellow, and seems to go on for hours before it finally settles behind the Porcupine Mountains. Senior Wheelsman Gary Elwell recalls many such ethereal sightings during his hours at the helm. "The Northern Lights haven't been particularly active this year," he says, "but I've seen times out here

when the whole sky lights up with them — sometimes solid green, sometimes changing shades of green — it's really spectacular."

Of course, even without the Northern Lights, the firmament over Lake Superior can be dazzling because the atmosphere is so clean, allowing us a view of the stars rarely seen to the industrial south. Constellations, planets, satellites and even the occasional shooting star are all arrayed in glorious profusion, igniting the imagination and reminding us that we are all but a fragment of sand and our boat a tiny cork in a millisecond of time in this incredible, unfathomable universe. An old mariner's invocation — *Oh God, thy sea is so great; and my boat is so small* — comes to mind.

While the boat is underway, there is always an officer on the bridge — either a first, second or third mate — working in four-hour shifts. And from dusk to dawn, there is at least one other crewmember present, usually a helmsman. As for the ship, it never takes a break: it is either underway, loading or unloading cargo, refueling or waiting its turn to perform these functions. Occasionally, it can even be found at anchor in the shelter of some bay waiting for a furious storm to subside. But according to Tom McMullen, captains are ever mindful of the axiom, "Time is money," so they continually feel the need to keep the boat moving when at all possible.

We awake next morning with the rugged shoreline of Minnesota in full view off our starboard. Two Harbors, where freighters take on millions of tons of iron ore from the Mesabi Range, is eight miles off our beam, and farther to the east is 100-year-old Split Rock Lighthouse, which was built in the aftermath of another horrific Lake Superior storm that in 1905 claimed dozens of ships. Ahead, about 30 miles to the west, we can just make out the elevated skyline of Duluth and its sister-city of Superior, Wisc. The *Barker* will lay up here for

the winter when the Soo Locks close for the season January 15.

Two hours later, we have Duluth's trademark Aerial Bridge squarely in sight. Passing beneath it is the *James R. Barker's* sister-ship, the 1,000-foot *Mesabi Miner*, and soon the two boats pass each other to port, the two captains waving their caps like schoolboys and the Great Lakes salute playing on their horns: a long Hooooooooooooooooooooooooooooot! followed by Hoot-Hoot!

We are headed for the coal dock in Superior; but first we must make a brief "splash-and-go" to top off the *Barker's* fuel tanks, which in this case is a mere 71,000 gallons. Larry and I ignore pleasure boat protocol and do not offer to split the bill with the captain.

From here, we pull across the harbor to the coal dock, which again is no simple matter because McMullen must swing the boat and back it for more than a mile before the destination is reached. Unlike their ocean-going counterparts, Great Lakes freighters do not generally operate in tight quarters with the assistance of pilots or tugs. It is clear that every freighter dock on the Great Lakes has its own unique challenges and that the captain must be familiar with every one of them in order to dock the boat without sustaining damage that can come in million-dollar increments in the blink of an eye. Successful handling of the boat, even with all its sophisticated navigational equipment, is a combination of seat-of-the-pants "Kentucky windage" and applied geometry. The captain must possess ample amounts of both.

It takes eight hours to fill 36 cargo holds measuring 50 feet deep and 100 feet across. In fact, the quantity of the coal we're taking on is the equivalent of nearly seven freight trains, each with a hundred carloads of the stuff. But finally, past midnight, the last of 58,000 tons of low-sulfur "Black Thunder" from Montana is loaded aboard. Out on the lake, all is calm. Forecasts, however, are predicting 11- to 12-footers and snow.





(Left) Just after sunrise on the St. Mary's River, the *Barker* passes another 1,000-footer, the *Edwin H. Gott*, headed for the Soo Locks we have exited.  
(Below) Passing through the Soo, the *Barker* occupies almost every square foot of the lock.



Around 1:00 a.m., we prepare to leave Duluth Harbor amid a blaze of lights reflected in the mirror-finish of the water. It is a calm prelude to the menacing 12-foot waves and snow that have been forecast out in the lake. After executing what the captain concedes is one of the more challenging turning maneuvers on the Great Lakes, we glide under the Aerial Bridge and head out once again into Lake Superior. With the glow of Duluth receding to our stern, we follow a course that will take us north of the Apostle Islands and on into the middle of the lake. From there, we'll strike a course for Whitefish Bay and Sault Ste. Marie, some 400 miles away. I turn in at 3:00 a.m., but Larry and the captain, who have primed themselves with cups of Starbucks high-octane French Roast, carry on. They will remain on watch until the haul, or course adjustment that will occur near the Devils Island Lighthouse.

We rise at 7:00 a.m. and head back up to the bridge, where we find another amicable morning with pink skies, temps in the mid-40s and benign seas. The anticipated snow and serious waves have not materialized. First Mate Bob Boyle, Second Mate Jay Roth and Wheelsman Jeff Chabot are up on the bridge as the watch changes. Out along the massive foredeck, crews are busy at work with high-pressure hoses, washing away the residue of coal from

the loading. We are even visited by flights of birds who view our huge hull as a landing and rest stop on the way to wherever it is they are headed.

The interlude allows Capt. McMullen to brief us on one of the more daunting weather events that occurs on Lake Superior from late October to early March. It is known as an Alberta Clipper, a fast-moving low-pressure system named for its origins in the mountains of British Columbia and Alberta, and also for the speed with which it can strike. An Alberta Clipper attacks with strong winds, temperatures that can plummet 30 degrees in a short period and snow that can attain blizzard strength. The captain explains that, for reasons not completely understood, the winds of an Alberta Clipper often accelerate when they reach the lake surface, generating fierce storm waves that turn to ice when they hit the ship and wind-chill temperatures that can drop to minus-50 degrees F. "When that happens, I assure you it is not fun out here," he says casually.

By mid-day, the seas have built to between four and seven feet; but we have the wind behind us, and the boat is pushing calmly ahead at 16 mph. About 20 miles to the north, we can see the mountains of storied Isle Royale, the largest island in the lake. Primitive forest covers its hillsides,

and packs of wolves roam the place; three of four lighthouses still warn mariners of its imposing presence. Simultaneously, the sparsely populated Keweenaw Peninsula is coming into view to our southeast. Its shape bears some resemblance to Cape Cod, but is larger and covered with hills and timber. Through binoculars we scan the Keweenaw's colorful conglomerate shoreline, consisting of sand beaches and ragged, precipitous cliffs.

With a break in our schedule, we take a tour of the *Barker's* engine room. Chief Engineer Drew Leonardi gives us earplugs, and over the considerable mechanical cacophony that prevails there day and night, he explains that the boat is powered by two 8,000-horsepower Colt-Pielstick turbo-V-16 diesels, each the size of a small schoolbus. We can't hear him say what the cubic displacement of the behemoths is, but Leonardi points to a spare piston the size of a bushelbasket, and we conclude that we are not talking Chevy small-blocks here.

He also explains that the boat doesn't have a transmission, per se, only a reduction gear and driveshafts connected to two 17 1/2-foot diameter propellers with controllable-pitch blades. When the captain wants to reverse direction, he turns the blades the opposite way with the controls. When he wants to go faster or slower,

he alters the throttles of the engines, which also changes the pitch of the blades. The boat is operated directly by the officer at the controls; there is no more reliance on the old Chadburn, or telegraph that captains would use to signal the engine room what was desired: Full Astern, Neutral, Full Ahead, etc.

Dinner this night exceeds all expectations: steaks grilled outside and baked potatoes. Shortly thereafter, the lighthouse at Copper Harbor comes into view and sometime later, the two lights at Manitou Island. At dusk we spot Lake Superior's most famous light, the desolate Stannard Rock Lighthouse, surrounded by angry-looking waves with the nearest shore 25 miles away. Hard to believe keepers actually used to live there.

Bedtime arrives earlier than usual because we expect to make Whitefish Point about 3:45 a.m. Whitefish Bay is where the ill-fated *Edmund Fitzgerald* was headed, and we want to be up to see what we can of it.

The lighthouse at Whitefish Point passes quietly to starboard in the early-morning dark, and we enter the bay whose shelter probably would have saved the *Big Fitz*. Our own seas have subsided as well, but for us the bay has a different meaning. Off to the east is the first of a series of buoys that lead to the St. Marys River and then the storied Soo Locks. An average of 10,000 ships pass annually through the Soo, which is quite a statistic because the locks are closed for the winter, from mid-January through March.

Dawn breaks over Sault Ste. Marie with a dazzling show of light, and we enter the locks with the sun beaming through the pilothouse windows. Freighter traffic is light this day, but Captain McMullen is extremely cautious as he inches the *Barker* into Poe Lock. Even under calm wind conditions, the *Barker* wants to move from one side of the lock to the other because of the hydraulic effect that is caused whenever a large vessel enters a tight, contained space. The *Barker* is 105 feet wide; our lock measures 110. We have exactly 2 1/2 feet of clearance on either side. The captain likens it to pushing a cork into a bottle as we enter, then pulling it out as we exit.

#### Factoid #1

Capt. Tom McMullen and wife Susan reside in Livonia, Michigan. They have two adult sons. Tom grew up in the Florida Keys, boating, snorkeling, scuba diving and playing golf. He served in the U.S. Navy on ballistic missile and fast-attack submarines. He estimates that to date he has spent more of his life on the water than on land.

#### Factoid #2

When the freighter is underway, Capt. McMullen spends much of his time on the bridge and is always there when the vessel travels in restrictive waterways such as rivers and harbors. He personally docks the boat. When circumstances dictate, his meals are sent to the bridge.

#### Factoid #3

The motor vessel (M/V) *James R. Barker* is named after the CEO of Interlake Steamship Company of Cleveland, Ohio. The company owns and/or operates 10 lake freighters. The *Barker* was built by the American Ship Building Company in Lorain, Ohio. Her maiden voyage was in 1976.

#### Factoid #4

The *James R. Barker* is 1,004 feet long, has a beam of 105 feet and a depth of 50 feet (keel to main deck). Her draft when fully loaded is 28 feet (keel to waterline). Her cargo hatches number 36.

#### Factoid #5

The *Barker* is propelled by two Colt-Pielstick V-16 turbo-diesel engines, each generating 8,000 horsepower, with a working range of from 60 to 110 rpm at the shaft. The engines are connected by reduction gear to two 17 1/2-foot diameter stainless steel, controllable-pitch, four-blade, counter-rotating propellers. Cruising speed is 15-16 mph (freighter speed is measured in miles, not knots). Fuel capacity is 160,000 gallons.

#### Factoid #6

The crew numbers 23. Officers include the Captain, First, Second and Third Mates, plus the Chief Engineer and four Assistant Engineers. There is a Chef, an Assistant Chef, plus 14 Able-Bodied and Ordinary Seamen. Five of the "A-B's" are qualified as wheelmen.

#### Other 1,000-Footers Sighted by the Authors:

<i>American Century</i> .....	Lake Superior
<i>American Integrity</i> .....	Whitefish Bay
<i>Burns Harbor</i> .....	Lake Huron near De Tour
<i>Edwin H. Gott</i> .....	St. Marys River
<i>Walter J. McCarthy</i> .....	Lake Superior
<i>Mesabi Miner</i> .....	Lake Superior and St. Clair River
<i>Presque Isle</i> .....	Leaving Soo Locks
<i>Edgar B. Speer</i> .....	Lake Superior

"Now imagine trying this maneuver with high winds, limited visibility and the lock half full of ice," he adds.

Once we're securely in the lock, the watertight door closes behind us and the boat begins to descend as the water drains from the enclosure. We drop 20 feet in only 12 minutes and are now free to continue along the St. Mary's River, which this morning is a setting of utter beauty: flights of gulls, geese and ducks crisscrossing in the sky, hunters and fishermen passing, and Michigan/Ontario's wooded brown shoreline, dotted with marshes and wetlands,

gliding by on either side. Upbound on the opposite side of the channel is another 1,000-footer, the *Edwin H. Gott*, and the two leviathans pass gracefully to port in the crisp, sunlit air.

The remainder of the trip down the St. Mary's is the stuff sightseeing cruises are made of: the water as smooth and shiny as the hood of a Rolls Royce and the marshy shore giving way to clusters of homes and cottages of every status. Numerous islands dot the river as it widens, and some have elaborate private homes on them. One in particular has a for-sale





(Clockwise from Above)

The St. Mary's River is lined with homes of every imaginable status. This one, featuring its own lighthouse, had a For Sale sign on it. No ideas about the asking price.

After a deft 180-degree turn, the *James R. Barker* is ready to approach the Edison dock. Capt. McMullen's technique is to ease the bow up to the dock, then carefully make the stern follow suit.

Home at last — well, sort of. Secured by her cables to the Edison dock, the *James R. Barker* resembles a wall of reddish-brown steel that stretches nearly out of sight. As soon as her load of coal is unloaded, she'll be underway again.



sign on it, but none of us on the bridge can guess how much is being asked for it. But if you're looking for privacy, a home on an island in the Upper Peninsula is about as private as it gets.

At 1:00 p.m., we pass the ferry boats that shuttle back and forth to Drummond Island across De Tour Passage. A few minutes later, we come to the mouth of the river and the De Tour Reef Lighthouse marking our entrance into Lake Huron. In all, nine hours have passed since we entered Whitefish Bay. It has been simply the most amazing morning we have ever spent on the water.

We celebrate our passage that evening with plates of Chef Tom's baked stuffed pork chops, which are delicious. Although between bites, I wonder when the calorie police are going to converge on the mess room and arrest us both. Our sentence should be six months at hard labor on the treadmill. Dinner over, we waddle off to our quarters for some quality reading time. I fall dead asleep after reading just four pages of Cormac McCarthy's "Cities of the Plain."

When the travel alarm goes off at 7:00 the next morning, I note the pile of blankets on Dr. Larry's bunk and discover that he is not under them.

I do not fear kidnapping. Surgeons are notorious early risers, and without anyone to operate upon, the doctor is most likely to be found keeping watch up in the pilothouse, which is the case this morning. Turns out he has been up since 5:00 watching the lights on the shore of the Michigan Thumb pass by to the west. The captain is up, too, brewing another of his aromatic pots of gourmet coffee. McMullen, in fact, has a whole collection of coffee beans which he selects and grinds on their way to the coffemaker. As he puts it, "We don't drink alcohol aboard ship, so at least we can have good coffee." We hoist our steaming cups as Fort Gratiot light is sighted, and shortly afterward the first set of buoys leading to the St. Clair River glide by on either side. Up ahead, through the morning haze, we can make out the welcoming arches of the Blue Water Bridge, which connects Port Huron, Mich., with Sarnia, Ontario.

Soon the town of St. Clair with its rows of stately waterfront homes slides past, as does the old St. Clair Inn., which seems close enough to touch, because it almost is at that point. We pass dozens, hundreds of empty docks, shuttered boathouses and closed-up cottages. Winter most certainly is headed our way.

Before us, just around the bend, the stacks of the Detroit Edison power station loom into view. It is our final destination. But one last bit of drama remains. First the boat must be turned 180 degrees, which is no small task, because the hull is nearly as long as the river is wide at this juncture. Adding to the challenge, freighter traffic is heavy this morning: we have an upbound boat to the south of us and another downbound to the north. The captain has a window of just a few minutes to get the *Barker* stopped, turned and tucked in parallel with the Michigan shore without causing a conflict of zillion-ton steel leviathans. Moreover, there is another freighter, the *Mesabi Miner*, still unloading at the Edison dock. Once we make our turn, McMullen will either have to hold fast in the current until the *Miner* departs or drop anchor. It's a potentially dicey situation.

But it goes with the job. The *Barker* passes the *Miner* to starboard, and as soon as the upbound boat to the south is past us, Captain McMullen orders "midship" on the helm, puts the boat in reverse, and with the props vibrating in protest, slowly brings her to a halt in the current. Then it's "hard right!" to wheelsman Jimmy Tahtinen, and with the



bow thruster lending an assist, the bow begins to swing west until we are pointed straight at the Marine City shoreline. The wind this morning, out of the south, is both a help and a hindrance, because as surely as it imparts a northerly push to the bow half of the boat, it also fights with the stern half as she pivots around. And all the while, the current is pushing us downriver at three mph. The St. Clair River's crystal-blue water is churned into a frenzy as the big props labor in reverse.

The 20-minute turn seems slow, but is nevertheless successful. The freighter to the north of us looms into view around the bend just about the time the *Barker* completes her swing. We tuck in neatly below the *Mesabi Miner* as she completes offloading.

With a moment to relax, the captain confesses there is some local knowledge

in his boathandling. For this particular docking, he places the *Barker's* pilothouse directly in line with a canal next to a small white cottage on the shoreline and he uses it as a reference point to begin swinging the boat. In mid-turn, he has just a few hundred feet of navigable water in front of the bow and stern, but it works. Just don't paint that cottage a different color. Or fill in that canal. The owners of the property probably have no idea of the vital role they play in maritime navigation.

The *Mesabi Miner* departs at 11:10 and there is just one last challenge before us. The DTE Power Station is located at a bend in the river, and the current that flows by the apex is tricky, if not downright hostile. McMullen says it can suck an unsuspecting freighter sideways into the dock, causing all sorts of expensive grief.

With adept maneuvering, the bow end softly touches home, a crew member is lowered to the dock, the *Barker's* cables are secured to the bollards, and the stern completes its swing until another soft contact is made nearly 1,000 feet further down the dock. Then the aft cables are dropped home. And so are we.

We will miss everything that has taken place these past five days, and of course we will never see another 1,000-foot freighter or a chart of Lake Superior without thinking of the *James R. Barker*, her great crew and our adventure. We never had to confront the perilous weather that Great Lakes freighters and their crews routinely do in November and December, but our voyage was still the experience of a dozen lifetimes. ■

*Adapted from The Grosse Pointer, official magazine of the Grosse Pointe Yacht Club.*

Courtesy of Boatnerd.com



## The Real Demise of the *Edmund Fitzgerald*

The freighter *Arthur M. Anderson*, commanded by the late Capt. Bernie Cooper, was several miles astern of the *Edmund Fitzgerald* when the tragic sinking happened. Recalling the catastrophe, Cooper was absolutely certain that his radar showed the *Fitz'* passing over the Six Fathom Shoal area north of Caribou Island, and he believed a hole was torn in the ship's bottom at that time, causing her to list shortly afterward and sink four hours later. In the aftermath, conflicting theories have continued to abound as to what caused the sinking. But the most credible perspective still available abides with the man who was out there that terrible night. He is retired Ship's Captain Don Erickson, who, using a chart of Lake Superior, recently explained to the authors what he believes happened.

When the *Arthur Anderson* reached the shelter of Whitefish Bay and could safely turn around, she headed back out to search for the *Fitzgerald*. The *Anderson* was accompanied by the *William Clay Ford*, captained by Don Erickson, who ventured out at the request of the U.S. Coast Guard.

The two ships proceeded in parallel formation about a half-mile apart at slow speed because of the huge waves until they were about a mile downwind from the spot where they estimated the *Fitzgerald* had last been seen on radar. They maintained close to idle speed and headed directly into the wind, making no attempt to circle or turn around for fear they would capsize. Their hope was to rescue any men or lifeboats that would be blown in their direction. Planes and at least one helicopter with lights circled above, dropping flares near the two ships. Immense waves continued to pound the two ships all night long. No survivors were found. Several days later, the two captains met one-on-one and conferred at length about what happened. Capt. Erickson firmly agrees with Cooper that it was contact with the bottom that sank the *Edmund Fitzgerald*.

Capt. McMullen added that large waves sometimes strike the bow with a loud bang, creating the sensation that the ship has been hit by an artillery shell or has run into a solid object. Crew members frequently lose their

footing during these violent encounters, and it is highly plausible that the *Fitzgerald's* initial contact with the shoal might not have been interpreted as such, or even noticed at all. In cases where the ship's pilothouse is located toward the bow, large waves will sometimes completely engulf it, causing the ship to shudder beneath the surface and then slowly emerge as if rising from the depths. Back when he was a young wheelsman, Capt. Erickson recalls a wave on Lake Superior crashing over his bow and denting the steel pilothouse. On another stormy voyage, while hugging Superior's northeast lee shore, he remembers his anemometer reading winds of 111 knots — the highest he has ever observed.

For whatever reason, water was presumably entering the *Fitzgerald's* hull faster than her 7,000-gallon-per-minute ballast pumps could pump it out, causing her to lose buoyancy. Huge following seas lifted the *Fitzgerald's* stern while other waves submerged the bow section, thus initiating her fatal plunge to the bottom.



# GREAT LAKES LEVIATHANS

## *A Guide to 1,000-Footers*

By Larry W. Stephenson, M.D.; ISMA Lodge #7 Member

Of the many sights along the Great Lakes, one that never fails to impress is that of a thousand-foot lake freighter moving majestically over the water. When someone exclaims, “There goes a thousand-footer!” heads immediately turn and eyes scan with awe and respect — for good reason. These mighty ships are longer than the legendary *Titanic* and only a bit shorter than a modern aircraft carrier.

Thousand-footers may command our attention, but how much do we actually know about them? How many are there? Where and when were they built? And as they make their way to their destination, what exactly is their float plan?

The natural barriers between the Great Lakes and the Atlantic Ocean were breached when the St. Lawrence Seaway opened in 1959. As a result, large ocean-going vessels were able to enter the river and travel over 1,500 miles to Great Lakes’ ports, their size limited only by the locks in the St. Lawrence River and the Welland Canal. Seven of the eight Welland Canal locks are 766 feet long and 80 feet wide. The eighth lock, however, is over 1,000 feet long.

In the 1960s, the Army Corps of Engineers rebuilt the Poe Lock, one of the Soo Locks on the American side at Sault Ste. Marie. At the urging of the Lake Carriers’ Association, the lock was redesigned to a length of 1,200 feet and a width of 110 feet. The reconstruction of the Poe Lock, completed in 1968, opened the upper Great Lakes to the passage of much larger ships.

Meanwhile, plans for the first thousand-foot lake freighter were already underway. The keels for the bow and stern sections of the *Stewart J. Cort* were laid in Pascagoula, Miss., in February 1969. The 72-foot bow was welded to the 110-foot stern in 1970, temporarily creating an ungainly short, wide ship that was immediately nicknamed “Stubby.” “Stubby” traveled on its own power through the Gulf of Mexico, up the Atlantic coast and into the St. Lawrence Seaway. The beam of the *Cort* would eventually be 105 feet, but because of the width restrictions of the St. Lawrence locks, “Stubby’s” bow and stern sections were originally only 72 feet wide.

The remaining center section of the *Cort*, measuring 815 by 105 feet, was built in Erie, Pa. When the bow and stern arrived at the shipyard, construction crews found a neat dotted line painted along the junction point where the fore and aft sections were temporarily joined. A tongue-in-cheek inscription read: “Cut here.”

And cut they did. The bow and stern were separated and sponsons were added to the sides to bring the width up to 105 feet. The three sections were then welded together, with the wheelhouse located in the bow, as was the custom in most lake freighters in those days. In the spring of 1972 the mighty *Cort* went into service as the first thousand-foot Great Lakes freighter.

The second thousand-footer to be built was the *Presque Isle*. She was an ITB, or Integrated Tug-Barge design, and the first such configuration to operate on the Great Lakes. The tug

and barge portions of the *Presque Isle* were never meant to operate separately. The tug was secured to a notched section in the stern of the barge and propelled it from there.

The *James R. Barker* was the third thousand-footer, and the first to be built in a manner that has since become standard lake freighter architecture, with the bridge and crew quarters in the stern. It was built in Lorain, Ohio, and went into service in 1976. Subsequently, four more thousand-footers were built in Ohio and six others in Sturgeon Bay, Wisc., for a total of 13.

From a distance, the 11 standard thousand-footers, with their bridge and crew quarters in the stern, look very similar; but as you get closer it is easy to differentiate between four of the five built in Ohio and the six built in Wisconsin. The Wisconsin-built ships have a much wider bridge that projects above and beyond the sides of the crew quarters. The two exhaust stacks, or funnels, are set far apart, whereas the stacks on the Lorain ships are almost next to each other. Looking straight on at an approaching thousand-footer, the stepped bow section of a Lorain-built boat is higher and more flared, making the small, elevated observation house projecting from the bow harder to see. The one exception is the *Edgar B. Speer*. It looks more like a Sturgeon Bay ship, even though it was built in Lorain.

Thousand-footers were built to carry two kinds of cargo. The predominant cargo is iron ore in the form of taconite pellets from the mines around Lake Superior. To a lesser degree, they also carry coal from Lake Superior



(Opposite Page) The first 1,000-foot lake freighter, the *Stewart J. Cort*, passed through Detroit on its maiden voyage, May 2, 1972. Note bridge located in bow.

(Right) "Stubby" was the nickname given to the bow and stern portions of the *Stewart J. Cort* before her 815-foot mid-section was added.

(Far Right) The *James R. Barker*, built in Lorain, Ohio. A relatively narrow bridge with exhaust stacks placed close together typifies Lorain-built boats.



ports. The two exceptions to the rule are the *Walter J. McCarthy, Jr.* and the *Paul R. Tregurtha*, which almost exclusively carry coal to power plants. Here again we find another significant, if unseen, difference between the Ohio and Wisconsin ships. All Sturgeon Bay ships have a cargo capacity of well over 70,000 tons, while those from Lorain are less than 70,000 tons, making a difference in hauling capacity of as much as 18 percent between the two configurations. Once again, the *Speer* is the exception to the rule.

Thousand-footers are powered by a variety of diesel and electro-motive diesel engines, developing a total of 14,000 to 19,000 horse power per boat and requiring different grades of diesel fuel. They have at least two engines, two propeller shafts and propellers.

When thousand-footers first went into service, they carried crews of approximately 30 per ship. Over the years, with increased automation and other factors coming into play, the tendency has been to downsize crew numbers to about 22-24 per ship.

All 13 of these ships are still in service, although some have been temporarily taken out of commission related to collisions and groundings. In 1986, in southern Lake Huron, a major fire broke out on the *James R. Barker*, knocking out its propulsion machinery. The crippled ship was lashed to the side of another thousand-footer, the *William J. DeLancey* (now the *Paul R. Tregurtha*) and towed 400 miles to Sturgeon Bay, Wisc., for repairs.

If you were to try to identify the thousand-footers passing by Detroit

in a season, there is at least one you would be unlikely to see. The *Stewart J. Cort* sails only between Lake Superior and Lake Michigan, and from time to time, some of the others are committed to just these two lakes as well. At one time, the *Cort* might have been seen in the Detroit River on its way to or from winter lay-up in Lake Erie; but no longer, as it now winters only in Lake Michigan ports.

Thousand-foot freighters lay up during the winter months at shipyards or docking facilities in Lakes Erie, Michigan or Superior, where they generally undergo maintenance and repair work.

Every five years, the hulls of lake freighters must undergo a rigorous inspection. For a thousand-footer, this requires a facility with a dry dock of appropriate size and properly trained workers. Bay Shipbuilding in Sturgeon Bay, Wisc., is the main shipyard for thousand-footer maintenance, repairs and inspections. One other shipyard capable of accommodating

the thousand-footers is located in Erie, Pa.

How much longer will the current thousand-footers be around? Some of the older ships are beginning to receive new engines after 30 or more years in service. With the rigorous maintenance standards that are in place, experts predict that these ships may well be plying our waters for another 30 years or longer.

For anyone interested in seeing how many of these leviathans you can spot, here's a tip: There are other ships out there that are often confused with thousand-footers. The *St. Clair*, at 770 x 92 feet, was built in Sturgeon Bay and looks surprisingly similar to their thousand-footers. The *Roger Blough*, at 858 x 105 feet, has its wheelhouse in the bow and looks similar to the *Cort*. The 844-foot ATB (Articulated Tug-Barge) *Great Lakes Trader* looks from the bow and sides very much like a thousand-footer. Good luck! ■

*Adapted from The Grosse Pointe, official magazine of the Grosse Pointe Yacht Club.*



*Presque Isle*, the second 1,000-foot lake freighter, is an integrated tug-barge design. Also note smaller tug on its port side.



The *Burns Harbor*, built in Sturgeon Bay, Wisc. Its wide, overhanging bridge with widely placed stacks and non-flared bow are characteristic of Sturgeon Bay-built freighters.

# GREAT LAKES THOUSAND-FOOTERS

Photos Courtesy of Boatnerd.com  
Stewart J. Cort Photo Courtesy of Interlake Steamship Company



Name	Built	Length/Width	Depth
<b>American Century</b> <i>Originally Columbia Star; name changed 2006; Bay Shipbuilding</i>	1981	1000 x 105	56



<b>American Integrity</b> <i>Originally Lewis Wilson Foy; 1991 Oglebay Norton; 2006 American Integrity; Bay Shipbuilding</i>	1978	1000 x 105	56
---	------	------------	----



<b>American Spirit</b> <i>Originally George A. Stinson; name changed 2004; bow and stern built by American Ship Building; Lorain, Ohio; mid-section built in Toledo, Ohio</i>	1978	1004 x 105	50
--	------	------------	----



<b>James R. Barker</b> <i>American Ship Building; first standard construction Great Lakes thousand-footer</i>	1976	1004 x 105	50
--	------	------------	----



<b>Burns Harbor</b> <i>Bay Ship Building</i>	1980	1000 x 105	56
---	------	------------	----



<b>Stewart J. Cort</b> <i>Bow and stern built Pascagoula, Miss.; mid-section built Erie, Pa.</i>	1972	1000 x 105	49
---	------	------------	----





Name	Built	Length/Width	Depth
<b>Edwin H. Gott</b> <i>Bay Shipbuilding</i>	1979	1004 x 105	56



<b>Indiana Harbor</b> <i>Bay Shipbuilding</i>	1979	1000 x 105	56
--	------	------------	----



<b>Walter J. McCarthy, Jr.</b> <i>Originally the Belle River; renamed 1990; Bay Shipbuilding</i>	1977	1000 x 105	56
---	------	------------	----



<b>Mesabi Miner</b> <i>American Ship Building; mid-section built Toledo, Ohio</i>	1977	1004 x 105	50
--	------	------------	----



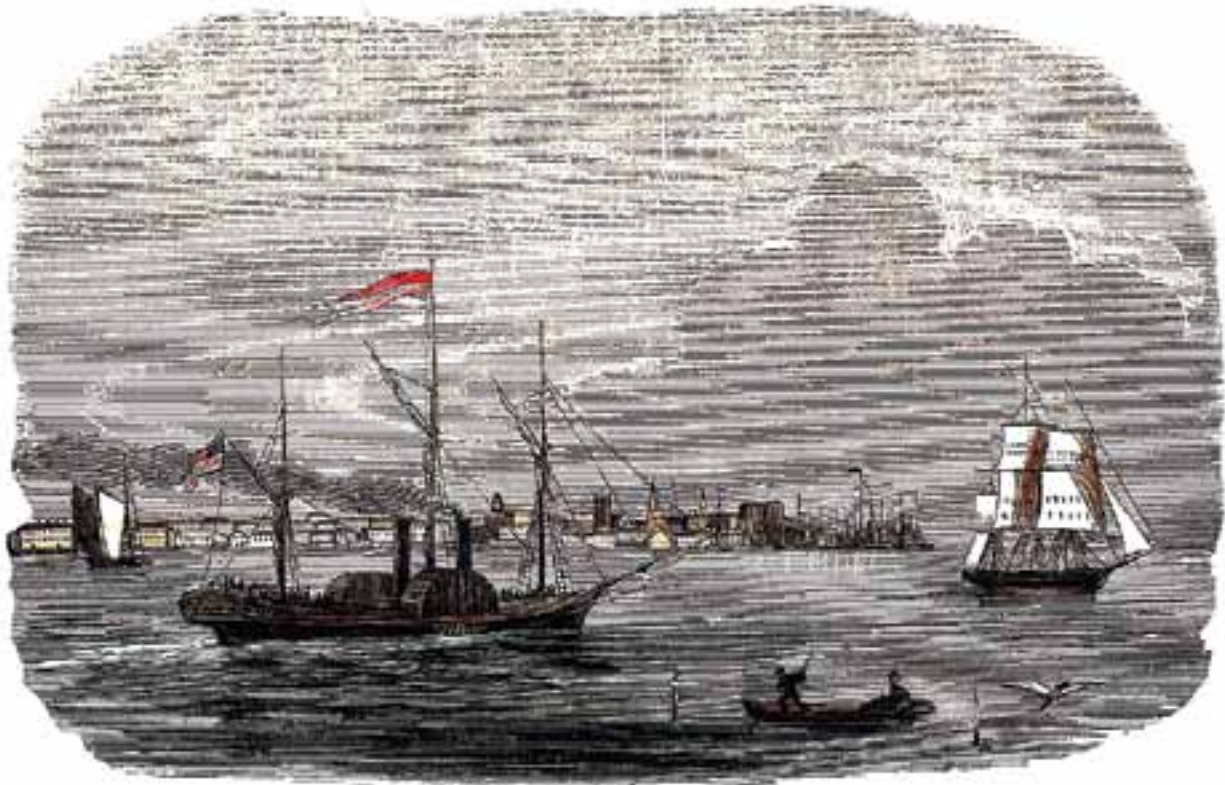
<b>Presque Isle (ITB)</b> <i>Barge built Erie, Pa.; tug built New Orleans, La.</i>	1973	1000 x 105	46
---	------	------------	----



<b>Edgar B. Speer</b> <i>Forward cargo section built Toledo, Ohio; completed American Ship Building</i>	1980	1004 x 105	56
--	------	------------	----



<b>Paul R. Tregurtha</b> <i>Originally William J. DeLancey; renamed 1990; American Ship Building; bow and part of mid-section built Toledo, Ohio; longest Great Lakes freighter; hauls mainly coal</i>	1981	1013 x 105	56
---	------	------------	----



# DETROIT: *Port City of the Straits*

By John Polacsek,  
ISMA Lodge #7 Member

The Port of Detroit is located between Lake St. Clair and Lake Erie on a broad expanse of moving water called a strait that varies from one-half to two miles wide and from 20 to 60 feet deep. The 20-mile-long channel carries fresh water while dropping a few feet in elevation as it flows between the lakes. During the navigation season, the passing recreational and commercial vessels range in size from canoes and sailboats to 1,000-foot-long freighters.

Detroit was settled in 1701 when the French explorer Cadillac built a fortification on the high bluff overlooking the strait. As one stands on Jefferson Avenue in downtown Detroit, the elevation changes some 50 feet from the top of the bluff to the water level. It was on this location that the French constructed a fort to command the approaches to the town. A very successful Great Lakes

trading center was soon established and the natural waterway allowed for the establishment of markets for the immense French fur trade. Detroit came to dominate the fur trade until the settlement was taken over by the British in 1760, and by June 1796 the British had turned the area over to the Americans.

Evidence of the British settlement and its maritime activities was recovered in 2000 when an ancient anchor was discovered on the bottom of the Detroit River. Although the anchor was missing the wooden stock, this early artifact was brought ashore at the J. W. Westcott Company dock near the Ambassador Bridge. A power wash helped to remove layers of crust and zebra mussels from the shank bringing to light the markings of the British crown and a certified weight of 756 pounds.

The Detroit River flows clear of ice most of the winter, allowing vessels to transit between the two shores carrying passengers and commerce. Early on, canoes, small sailing craft



(Top) View of Detroit, c. 1840.

(Middle) Detail of anchor showing markings of the British crown and a certified weight of 756 pounds.

(Bottom) Ancient British anchor found in the Detroit River.



(Top) Detroit Riverfront with railroad tracks.  
(Middle) A tug and barge on the Detroit River.  
(Bottom) Ferry at Detroit dock.

and barges were used, and later, steam powered vessels provided a reliable ferry service. The Detroit River was wide and deep enough that it could not be forded and this cross-river traffic was important to the commercial development of Detroit. The riverfront soon became the major crossing between the two countries, providing dockage to a variety of vessels. In 1920 the Steamboat Inspection Service gathered statistics on passengers using water transportation by ferry, day boats, night boats and cruise ships. The Port of Detroit ranked first on the Great Lakes with 13,218,336 passengers arriving or departing from the port.

**Railroad Traffic** — The Detroit River also hindered the movement of passengers and commercial cargos when the railroads began to spread their iron rails across Michigan. By the 1850s, train stations and railroad tracks began to overtake the waterfront, bringing their tracks parallel to the river's edge. Cargos and passengers needed to be transferred to the opposite shore by a break bulk system which moved railroad and passenger cars to a transfer vessel. The railroads were also responsible for building large, side-wheeled steamers that offered connections between Detroit and the railroads linking the lake ports of Toledo, Sandusky, Cleveland and Buffalo. From the Detroit dock, passengers and freight passed over the strait or landed in another port to continue their journey by railroad. By the 1870s, railroad cars were being transported across the Detroit River on special railroad car floats that did not require the unloading of any cargo or passengers. In 1908, the two-track Detroit River Tunnel was constructed between Detroit and Windsor to move railroad cars between the two countries. However, oversized railroad cars needed to be transported by tug and barge operations until the railroad tunnel was widened in the 1990s, which eliminated the car float service.



**Ferry Traffic** — The passenger ferry service between Detroit and Windsor began in the 1820s, and by the 1830s steam driven vessels transported thousands of passengers daily. Some of the vessels were outfitted with special ice-crushing bows that allowed them to continue this vital service during the winter months. The largest of these ventures was the Detroit and Windsor Ferry Company that operated from the 1860s to the 1930s. For only a nickel, the company provided continuous service every 15 minutes, and boats left the Detroit and Windsor docks on a schedule that had them passing midstream. During the summer months, bands played for the passengers on the vessels and the ferry company soon expanded

operations. The ferry company’s route included the recreation park of Belle Isle in the middle of the river, and they established their own recreation/ amusement park called Bob-Lo Island near Lake Erie. The ferry company lost business in the 1930s when the new Detroit River automobile tunnel and the Ambassador Bridge provided patrons with a quicker way across the river.

In the 1890s, the Detroit, Windsor and Belle Isle Ferry Company saw the need for a recreational park that could be accessed on the weekends during the summer when vessels were available. As the majority of the traffic across the river occurred during the week, it became necessary to create a destination park on Bois Blanc Island

near Lake Erie so the ferry boats could be utilized seven days a week during the summer. The new recreation park was so popular that two vessels were built to accommodate passengers on dedicated runs to the park during the summer season. The most famous boats were the *Columbia*, built in 1902, and the *Ste. Clair*, constructed in 1910. These vessels sailed until the 1990s, carrying thousands of church groups, school groups and business parties to the amusement park that became known as Bob-Lo Island. These vessels did not have any overnight rooms available and were designated “day boats” as they provided excursions to the island by day and “moonlight” dance cruises in the evenings.



(Left) 1950 Bob-Lo Brochure. (Top Right) Str. *Columbia* passing Detroit, c. 1949. (Bottom Right) Ferry *Britannia* with Sir Thomas Shaughnessy.



Launch of the *Seeandbee*, 1912.

**Shipbuilding** — A number of shipyards along the Detroit River constructed and repaired wood and steel vessels, including freighters, tugs, barges and sailing vessels. Recreational craft were also constructed, and in 1920, the Great Lakes Engineering Works produced the 250-foot Dodge yacht, *Delphine*, the largest private yacht on the Great Lakes. The Detroit & Windsor Ferry Company's *Britannia* was launched into a narrow slip May 12, 1906 from the stocks at the Detroit Shipbuilding Company's Wyandotte yard. This 164-foot-long passenger ferry had an ice-breaking bow that allowed it to keep the fleet in operation during the winter months. To the right of the *Britannia* is the steel bulk propeller, the *Sir Thomas Shaughnessy*, which was launched a week later on May 19th. This 480-foot freighter carried iron ore, coal and other bulk cargos. The side-wheel passenger steamer *Seeandbee* was constructed and launched at the Detroit Shipbuilding Company's Wyandotte shipyard on November 9, 1912. The *Seeandbee* was then towed to the finishing yard at the foot of Orleans Street in Detroit where her elegant upper decks were completed. Craftsmen who lived on the east side of Detroit constructed the paneling and interior decorations in the shipyard's shops and then installed them on the elegant night boat. Notice that the *Seeandbee* had a level second deck which later allowed the vessel to be converted to special use during World War II. She became one of two U.S. Navy side-wheeled aircraft carriers that served as floating practice fields for pilots on Lake Michigan.

**River Traffic** — The Detroit River is one of the busiest waterways in the world. At one time there was a major commercial vessel passing a reporting station every eight minutes during the navigation season. The November 9 and 10 vessel report from 1878 for vessels passing Detroit gives a good indication as to the types of vessels on the river. Vessel activity included day excursion and night boats, side-



wheeled steamers carrying passengers and freight, sailing schooners and tugs towing sailing vessels between Lakes Erie and Huron.

Belle Isle is located in the middle of the Detroit River just east of Detroit, and vessel traffic slowed as both up-bound and down-bound vessels passed close to the island. This was also the site of the first international telegraph line that was strung under the river between Windsor and Detroit in the late 1850s. Access to the telegraph line on Belle Isle was also one of the reasons why Captain J. W. Westcott commenced his marine reporting service in the 1870s. Captain Westcott would row out to passing vessels and receive telegraph messages and other communications. He also would collect fares from the sailing vessels that were being towed by tugs, passing from one vessel to another, and then settling with the tug boat for their towing service

on the next trip. Captain Westcott expanded his business, establishing a marine reporting office in downtown Detroit, at Amherstburg and at Port Huron. The company also carried the U.S. Mail, and to this day has the contract to provide the mail service through their vessel, the *J. W. Westcott II*. This vessel works through the navigation season and has the zip code 48222 assigned to it.



*J. W. Westcott II*.

**“Night Boats”** — Cross-lake vessels provided overnight accommodations to their passengers, and their runs usually began at 9:00 pm after the last passenger train reached the Detroit station. The occupants were able to conveniently board a vessel for Cleveland or Buffalo and continue their journey. The passengers had the opportunity to spend the night in a deck chair or to retire for the night in a stateroom as the vessel travelled the lake to its destination. Frequently, about half way across the lake, the steamer from Detroit passed a sister ship traveling from Cleveland or Buffalo. The voyage continued until the vessel came to its destination port about 8:00 a.m. “Night boats” not only carried passengers, but also commercial freight that needed to be delivered on time. The Detroit and Cleveland night boats began operation in the 1850s and lasted until the last cross-lake run during the 1950 navigation season. The largest fleet on the Great Lakes was the Detroit and Cleveland Navigation Company that ran side-wheel vessels between Detroit, Buffalo, Cleveland, Toledo and Mackinac. The D & C Line carried 440,584 passengers during the 1943 navigation season alone. The side-wheeled vessels were too wide to pass through the Sault Ste. Marie Locks or the Welland Canal, and operated exclusively on Lake Erie, Lake Huron and Lake Michigan.

**Cruising the Lakes** — As cruising the Great Lakes became more of a leisure activity, the Chicago, Duluth and Georgian Bay Transit Company had two cruise ships constructed by the Great Lakes Engineering Works at Ecorse, Michigan. The *North American* was built in 1913 and her sister ship, the *South American*, was constructed in 1914, exclusively as vessels that catered to the needs of passengers and not cargo. The vessels serviced all the ports on the Great Lakes, and passengers could find convenient three-, five- or seven-day cruises to various ports. During the 1940 navigation season, the *North*



and *South American* transported 35,182 passengers, but by 1963, due to the impact of the automobile, the company only serviced 12,499 passengers. 1967 was the last year the company operated, with only the *South American* in operation, carrying just 11,848 passengers.

**Detroit Fleets** — A number of fleets have called the Detroit area their home port over the years. In 1924 the new Ford Motor Company called Dearborn the home port of the *Henry Ford II* and *Benson Ford*. The *Benson Ford* was constructed at the Great Lakes Engineering Works at Ecorse, and her hull was 596 feet long by 62 feet wide. The vessel carried raw materials for the Ford Rouge Plant on the Rouge River until 1986. The *William Clay Ford*, with a hull 629 feet long and 70 feet wide, was constructed at the Great Lakes Engineering Works at River Rouge in 1953. The vessel carried iron ore and coal to the Rouge Plant



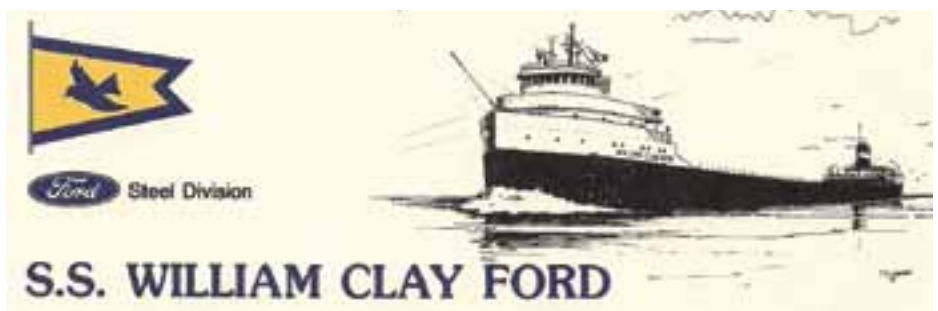




until 1986, when the Ford Motor Company decided that it was cheaper to contract out the delivery of raw materials instead of managing their own in-house fleet. Before the *William Clay Ford* was sold for scrap, her pilothouse was salvaged by the Erwin Robinson Company and later attached as a hands-on interpretive exhibit at the Dossin Great Lakes Museum on Belle Isle.

The Nicholson Transit Company was active from the 1920s to the 1960s, transporting automobiles to various Great Lakes ports. The automobiles were placed inside or on the decks of Great Lakes freighters and taken to a number of ports, including Chicago, Cleveland and Buffalo. After World War II, the demand for private automobiles became so great that some vessels were fitted with a “flight deck” that allowed extra cargo to be carried above the existing main deck. Vessels such as the *Mataafa* operated in this field from 1946 to 1961. It was in the 1960s that the railroads concluded that they would no longer accept automobiles transported by boat and began hauling automobiles directly from various production plants in the Detroit area.

In 1964, the Gaelic Tug Boat Company was developed by Captain



(Top) North American letterhead. (Middle) William Clay Ford letterhead. (Bottom) South American at the dock.

William Hoey, and for over 40 years has been in the marine transportation and towing business. The company has a fleet of tugs and barges to manage every challenge, including ice breaking, specialized towing, ship bunkering, ship assistance, bulk oil transport, salvage work and dry

cargo barging. In 1991, the company established the Detroit harbor tour line known as Diamond Jack River Tours. Some tours begin in downtown Detroit while others start at Wyandotte and tour the lower end of the Detroit River. ■



(Left) Gaelic tug boat Shannon. (Right) Mataafa.



## YOU DON'T HAVE TO COMMAND A SHIP TO BE A SHIPMASTER

The International Shipmasters Association was founded in 1890 as an exclusive organization for professional mariners. And while we remain dedicated to our original principle of being a respected voice in matters of safety and navigation on the Great Lakes, we now invite others to join us in the pursuit of personal and professional excellence.

**IT DOESN'T MATTER IF YOU'RE YOUNG OR OLD,  
PROFESSIONAL OR AMATEUR, CAPTAIN OR CREW.**

If you love the water as a diver, traveler, history buff, artist or scientist...  
If you love boats large or small, commercial or pleasure, power or sail...  
If you enjoy the company of others who share your enthusiasm...

**Then you are cordially invited to apply for ISMA membership.**



### **International Shipmasters Association**

16 ISMA Lodges around the Great Lakes, U.S. and Canada

Please visit [www.shipmaster.org](http://www.shipmaster.org) or [www.DetroitLodge7.org](http://www.DetroitLodge7.org)  
for more information.