BEHEMOTHS OF THE LAKE

THE AGE OF THE 1,000-FOOTERS

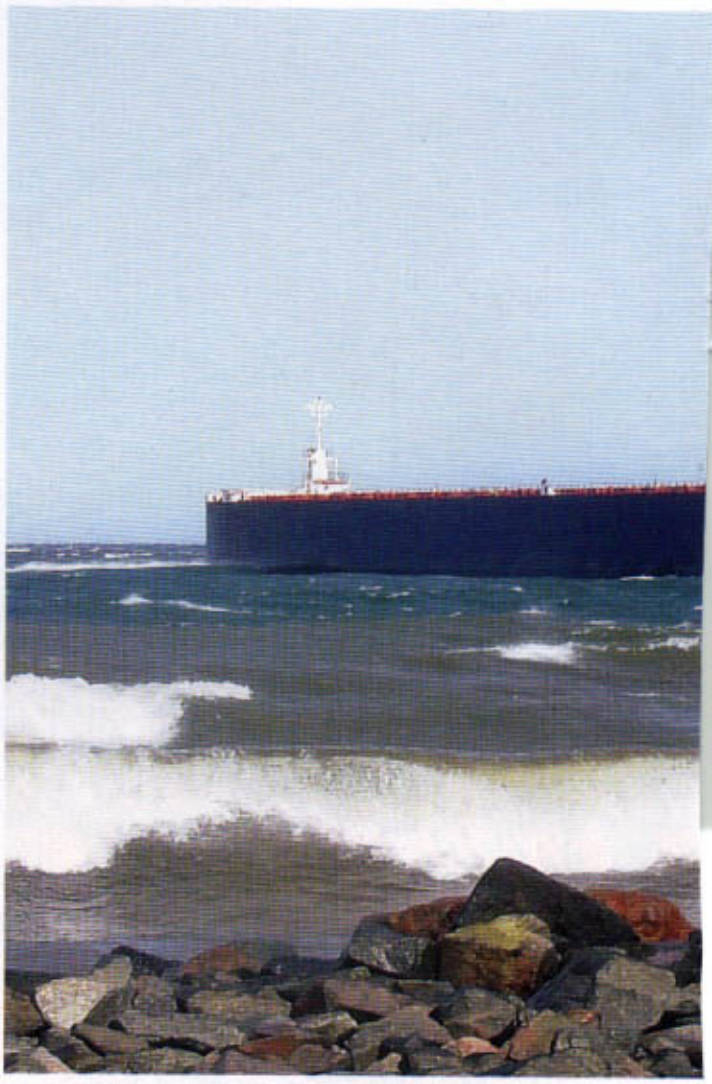
by Patrick Lapinski

It is mid-June 2005. The 1,000-foot vessel *Indiana Harbor* is eastbound on Lake Superior. It is a crystal clear day, the yellowish hues of Pictured Rocks National Lakeshore shimmering in the distant heat, a golden band of sandstone separating the lake from the higher tree line. A few miles ahead on our port side, *American Spirit*, a recently acquired fleet mate for American Steamship Company, is headed in the same direction.

Captain William Yowell quickly studies the horizon, calculating the speed of the *Spirit* against the speed of his vessel. He decides it's time to take a little shortcut. With fewer than 12 hours to go before reaching the Soo Locks, Captain Yowell estimates that he might be able to slip ahead of the slower-moving *Spirit* at the top of Whitefish Bay.

"*Indiana Harbor* calling the *American Spirit*, come in," calls the captain.

The wheelsman and mate on duty exchange a knowing grin as Captain Yowell exchanges pleasantries with the other captain over the ship's FM transmitter.



The *Walter J. McCarthy*, a 1,000-foot self-unloader, leaves Duluth. Owned by American Steamship Company of Williamsville, New York, the vessel can carry as much as 78,850 tons in cargo.

THE RACE TO THE LOCKS IS ON BETWEEN BOATS LONGER THAN 3 FOOTBALL FIELDS

"Hi, Bobby, it's Bill. How is it going over there?" he inquires. Captain Yowell and the *American Spirit*'s captain, Bob Gallagher, have sailed together for many years, their careers following a nearly parallel course.

Neither misses a chance to have a little bit of fun.

"I was just wondering if you need us to come behind and give you a little push?" jests Captain Yowell.

"Oh, okay," he laughs after a short pause. "Just let us know if there's anything we can do to help you out. Have a good trip."

Within minutes a cloud of black smoke belches from the stacks of the distant *American Spirit*. With state-of-the-art radar and GPS tracking, each captain knows instantly what the other is doing, but the remainder of the four-hour watch just got more exciting. The race to the locks is on between boats longer than three football fields strung together.

JERRY BIELICKI

During the past two centuries, the size of freight vessels on the Great Lakes and the amount that they can carry has steadily grown. Prior to the 1880s, all vessels were wooden and typically powered under sail by prevailing winds. The average length rarely exceeded 300 feet. In 1882 the first iron-hulled ship, the *Onoko*, was built, followed several years later by the *Spokane*, the first steel-hulled vessel. Steel quickly became the construction material of choice.

Multiple factors contributed to increased vessel sizes. Development of iron mining in Michigan's Upper Peninsula and in Minnesota, the opening of the locks at Sault Ste. Marie, dredging and harbor improvements and specialized cargo-handling equipment all gave rise to larger carrying capacity.

The dominance of steel and the rapid adaptation of steam-powered engines brought a quick decline to the era of sailing ships on the Great Lakes. With their superior longitudinal strength, steel vessels reached the 400-foot mark in 1895, the first 500-foot vessels appeared in 1900, and by 1906, vessels were being launched at 600 feet in length and, for the first time, regularly exceeding 10,000 tons of cargo capacity.

After the opening of the St. Lawrence Seaway System in 1959, seaway-sized vessels appeared, their 730-foot length and 75-foot beam designed to maximize use of the dimensions of the system's locks.

13 VESSELS COMPRISE THE CLASS OF CARRIERS KNOWN AS THE 1,000-FOOTERS

Change came to the upper lakes in 1969 when the Poe Lock at Sault Ste. Marie was expanded to 1,200-by-110-feet. Even before it was done, vessels were being constructed to take advantage of the larger lock. In 1968, *Roger Blough*, at 868 feet, became the largest ship to sail the Great Lakes.

Its length was soon eclipsed when *Stewart J. Cort* made its maiden voyage in the summer of 1972. At 1,000 feet in length, with a capacity of 58,000 tons, it would take about three 600-footers to carry the same ore as one trip for the *Cort*.

For the "1,000-footer," the Soo Locks at Sault Ste. Marie are the epicenter of the eastern flow of raw materials from mighty Lake Superior to

1,000-FOOTERS

NAME	SIZE	COMPANY	YEAR	SHIPBUILDER	FORMER NAMES
PAUL R. TREGURTHA	1,013'	Interlake Steamship Company	1981	American Shipbuilding Company	*William J. DeLancey*
AMERICAN SPIRIT	1,004'	American Steamship Company	1978	American Shipbuilding Company	*George A. Stinson*
EDGAR B. SPEER	1,004'	Great Lakes Fleet Incorporated	1980	American Shipbuilding Company	
EDWIN H. GOTT	1,004'	Great Lakes Fleet Incorporated	1979	Bay Shipbuilding Company	
JAMES R. BARKER	1,004'	Interlake Steamship Company	1976	American Shipbuilding Company	
MESABI MINER	1,004'	Interlake Steamship Company	1977	American Shipbuilding Company	
AMERICAN CENTURY	1,000'	American Steamship Company	1981	Bay Shipbuilding Company	*Columbia Star*
AMERICAN INTEGRITY	1,000'	American Steamship Company	1978	Bay Shipbuilding Company	*Lewis Wilson Foy & Ogleboy Norton*
BURNS HARBOR	1,000'	American Steamship Company	1980	Bay Shipbuilding Company	
INDIANA HARBOR	1,000'	American Steamship Company	1979	Bay Shipbuilding Company	
WALTER J. MCCARTHY JR.	1,000'	American Steamship Company	1977	Bay Shipbuilding	*Belle River*
PRESQUE ISLE	1,000'	Great Lakes Fleet Incorporated	1973	Erie Marine Incorporated	
STEWART J. CORT	1,000'	Interlake Steamship Company	1972	Erie Marine Incorporated	

SAM LAPINSKI

JACK RENDULICH

As the first 1,000-foot vessel to sail the Great Lakes, *Stewart J. Cort* (top) to this day has a large #1 painted across the after deckhouse. While the *Edwin Gott* (bottom) is not the longest vessel at 1,004 feet, its two diesel engines generate the most power: 19,500 hp.

From its launching in 1972 until 2005, the *Stewart J. Cort* was owned and operated by Bethlehem Steel. It is currently under long-term management of the Interlake Steamship Company. For the past 35 years, the *Cort* has rarely strayed from its main trade route from Superior, Wisconsin, to Burns Harbor on southern Lake Michigan.

Following the *Cort*, the next 1,000-footer built, the *Presque Isle*, has turned out to be somewhat of an anomaly. *Presque Isle* is a tug-barge, a combination typically referred to as an ITB (integrated tug-barge). The *PI*, as it is generally called, shares similarities with the *Cort* in having its hull fabricated by Erie Marine, while the tug was constructed in Mississippi.

From 1976 to 1980, the remaining 11 of the 1,000-footers were built, five at the American Shipbuilding Company yard in Lorain, Ohio, and six by Bay Shipbuilding Company in Sturgeon Bay, Wisconsin. All vary slightly in length, from 1,000 to 1,004 feet, with the exception of the *Paul R. Tregurtha*, the longest on the lakes at 1,013 feet.

In comparison to bulk cargo vessels that sail deep sea, most being oil tankers, the *Tregurtha* ranks 25th worldwide in overall length. The longest vessel currently in the world is the *Knock Nevis*, a supertanker measuring 1,504 feet. Many oceangoing vessels, both commercial and military, are longer than our 1,000-foot lakers.

But on the Great Lakes, *Paul R. Tregurtha* is the reigning "Queen of the Lakes," a distinction bestowed upon the largest ship in length enrolled in active service. The "hotel" or bridge portion of the vessel stands five stories above weather deck level (that's the height of the Technology Village in Duluth, the old grain exchange building in Thunder Bay or the historic Savings Bank in Marquette), within that space are accommodation decks for the crew, the galley and mess deck and the pilothouse. The *Tregurtha*, the flagship of Interlake Steamship Company fleet, has staterooms for guests and a luxurious visitors lounge. Command of the vessel is usually reserved for the senior captain in the fleet.

Another 1,000-foot vessel, however, Great Lakes Fleet's *Edwin Gott*, is considered the most powerful ship on the Great Lakes because its two diesel engines generate 19,500 horsepower, several thousand more horsepower than found on most other 1,000-footers. (Compare that to a "muscle car" like the new Corvette ZR1 with a supercharged engine that produces a puny 620 horsepower.)

A little more than a century after the first 600-footer was launched, nearly all lakers today exceed that length. The smallest, and oldest, vessels still operating are in niche markets, transporting powdered cement or cargoes loaded to a particular "draft," the water depth of a dock or harbor. The 1906-era *St. Marys Challenger*, a 552-foot cement carrier, is considered a classic on the lakes today. Going back farther is the *E.M. Ford* (1899), used as a cement storage vessel on the Saginaw River in Michigan.

Back on the *Indiana Harbor*, as the dawn of a new day brushes tinges of lavender and rose beyond the darkened shoreline, the 1,000-footer glides slowly across the water of the upper St. Marys River on its approach to the Poe Lock. Amid the myriad lights that surround the locks, the *American Spirit* sits stationary in the lock ahead of us, slowly settling to the level of the lower lakes. For this trip, the "victor" has been decided between two behemoths of the Great Lakes. For the long run, all 1,000-footers are ahead in the race for Great Lakes cargo-hauling dominance.

Patrick Lapinski, a native of Superior, is a writer and photographer who concentrates on the Great Lakes maritime industry.

JACK RENDULICH

The *Paul R. Tregurtha*, reigning "Queen of the Lakes," slides through the Duluth Ship Canal. At 1,013 feet long, it's the largest ship in length in enrolled service on the Great Lakes. This vessel, like all the 1,000-footers, is a self-unloader as seen by the boom arm aft.

the steel mills and power plants of our nation's industrial corridor.

Today, 13 vessels on the Great Lakes comprise the class of bulk carrier known as 1,000-footers. Well, actually, not all of the Great Lakes. Their size, with an overall length of up to 1,013 feet and a beam of 105 feet, restricts the vessels to the four lakes above the 27-mile-long Welland Canal linking lakes Erie and Ontario. The canal's eight locks measure only 80 feet wide and 766 feet long, accommodating vessels to 740 feet in length so no 1,000-footers get to Lake Ontario. (With the seven locks from the Atlantic Ocean into Lake Ontario also at 766 feet long, no larger oceangoing vessels or "salties" ply any of the Great Lake.)

The 1,000-footers, with their large cargo capacity, are dedicated to the iron ore and coal trades. They typically load at Lake Superior ports (Escanaba on Lake Michigan is the exception). They unload on Lake Michigan in Burns Harbor, Indiana Harbor and Gary, Indiana, or Muskegon, Michigan, or on Lake Erie at Cleveland, Toledo, Ashtabula and Conneaut, Ohio, or Nanticoke, Ontario. Additionally, iron-ore pellets and coal – the raw materials feeding steel mills and power plants – are unloaded at docks along the St. Clair and Detroit rivers.

The 1,000-footers usually carry a crew of 22. Like all lake carriers, the crews are divided into three departments: the deck, engine and galley. The deck crew consists of a captain, three officers or "mates," three wheelsmen, a bosun or deck foreman and usually two or three deckhands.

The engine department consists of a chief engineer, three assistant engineers and one or two assistants called handyman, wiper or a QMED (qualified man in the engine department). Because they are self-unloading vessels, each has a conveyorman and a gateman dedicated to keeping the unloading system operational.

In the galley is the steward or chief cook, a second cook and sometimes a porter or steward's assistant. It is also common during summer months to have cadets on board from various maritime academies.

Even for the most jaded mariner, the arrival of that first 1,000-footer, *Stewart J. Cort*, introduced a most remarkable boat. As the first 1,000-foot vessel to sail the Great Lakes, the *Cort* to this day has a large #1 painted across the after deckhouse. It also has a number of unique features that distinguish it from others of its size. It is the only 1,000-footer with forward and aft cabins. These sections of the ship were built in Mississippi, welded together and sailed up the St. Lawrence Seaway (under the name *Stubby*) to Erie, Pennsylvania, where the mid-body cargo section was added.

The *Cort* was built with extra-thick steel plating in its hull, making it a powerful vessel in the ice. Also unique to the *Cort* are its hydraulic hatch covers and a ballast system controlled by the mate on the deck instead of by someone in the engine room. It can discharge all of its ballast at once, allowing it to take its full load in less than five hours, considerably faster than any other laker of its size.