



LAKE CARRIERS' ASSOCIATION



2020 State of the Lakes

Members:

American Steamship Company

Williamsville, New York

Andrie LLC

Muskegon, Michigan

Central Marine Logistics, Inc.

Griffith, Indiana

Great Lakes Fleet

Duluth, Minnesota

Inland Lakes Management, Inc.

Muskegon, Michigan

The Interlake Steamship Company

Middleburg Heights, Ohio

Lake Michigan Carferry Service

Ludington, Michigan

Pere Marquette Shipping Company

Ludington, Michigan

Port City Marine Services, Inc.

Muskegon, Michigan

Soo Marine Supply, Inc.

Sault Ste. Marie, Michigan

VanEnkevort Tug & Barge, Inc.

Escanaba, Michigan

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For 140 years, Lake Carriers' Association has represented the U.S.-flag Great Lakes fleet. Our members move the iron ore that is the backbone of America's manufacturing economy; stone and cement that build America's infrastructure; grain that feeds the world; and cargos that support the energy needs and economy essential to American prosperity.

2020 marks the 140th anniversary of the founding of the Lake Carriers' Association. Lake Carriers' traces our earliest roots to the Cleveland Vessel Owners' Association formed in 1880. Early work focused on navigation, safety, infrastructure, and crewing. The aim of this voluntary alliance of steamship companies was to reduce navigation hazards on the Great Lakes; recommend improvements in harbors, channels, docks, and lighthouses; and help recruit and train vessel personnel. In its early years, Lake Carriers' maintained, at our own expense, navigation lights and financed important infrastructure projects. Lake Carriers' purchased a vessel and converted it to a lightship to mark Southeast Shoal in Lake Erie. We established the first set of "course lines," essentially highways on the water, to make sailing safer, avoiding collisions in the days before radio, radar, and Global Positioning System.

Lake Carriers' challenged regulations like one in 1887 from the U.S. Board of Supervising Inspectors of Steamships. The proposal would have mandated how steerage was controlled on board a vessel, literally requiring when a ship's wheel was turned to port, the vessel would go to starboard and vice-versa, so called "crossed chains." Imagine turning the steering wheel of your car to the left to make a right-hand turn. Lake Carriers' advocated for "straight chains" that allow a vessel to go to port when the wheel was turned to port. This eventually became the international standard.

We opened schools to help the mariners maintain their proficiency and credentials and advance their careers as many worked their way "up the hawsepipe" from the deck to the wheelhouse. We initiated safety programs for work onboard and ashore, payroll savings programs for the crews, and insurance policies for vessels and crew. Lake Carriers' ran the hiring halls throughout the lakes.

Lake Carriers' successfully helped transition these programs into governmental and corporate responsibilities that set the standard for safe navigation, efficient use of public waterways, crew safety and their financial security.

For a detailed history of the Great Lakes, its governance, and the work of Lake Carriers', I highly recommend George Ryan's "Lake Carriers' Association History, 1880-2015." George preceded me as president, mentored me, and literally wrote the book on the Lake Carriers' Association.

I'd also like to invite you to our new website, www.lcaships.com. We've updated the look, navigation, and accessibility to ensure that it tells the story of Great Lakes maritime past and present while setting a course for tomorrow.

Today our core priorities remain the U.S.-flag Great Lakes vessel operators, the crews of the fleet, a safe and efficient navigation system, and the Great Lakes themselves. The issues that enhance or hinder commercial navigation on the lakes have changed some over the last 140 years and yet they remain rooted in safety, efficiency, and fair competition. As you'll read in this 2020 edition of our "State of the Lakes" we revisit some consistent themes and discuss current issues vital to maintain commercial maritime vessel operation on the Great Lakes.

Fair winds and following seas,

Jim Weakley

CORONAVIRUS (COVID-19)



Due to the seasonal nature of Great Lakes shipping, crews were just beginning to arrive for “fit out,” the process of getting the vessels ready to sail following winter layup and maintenance, when COVID-19 started hitting the country in March. It prompted early discussions among our 11 member companies and the mariners on their 46 vessels. We delved into a wide range of topics related to crewing vessels, interacting with onshore and other essential personnel to get and keep the fleet sailing, quarantining, testing, and maintaining healthy crews.

At the time, the Centers for Disease Control (CDC) and the United States Coast Guard (USCG) had no planning for the domestic maritime ramifications of this pandemic. CDC was focused on international travelers arriving at airports and our land borders, north and south. The USCG was focused on foreign-flag vessels in U.S. waters and ports. It was left to Lake Carriers’ and its members to fill the planning and preparedness void which we did with daily operations briefs exchanging information and best practices among, as always, a collaborative fleet; scouring sources to develop resources for our members; engaging with ports, communities, and customers throughout the lakes to ensure maritime worker safety afloat and ashore; continuing dialogue with CDC and USCG; and preparing planning and response tools including emergency “Red Plans” for vessels and ports to handle perceived, potential, and actual impacted crew and vessels. Strong communications built on solid facts, short and long-term planning, and vessel operators who understood the seriousness of the situation from the start and the need to keep sailing has been key throughout.

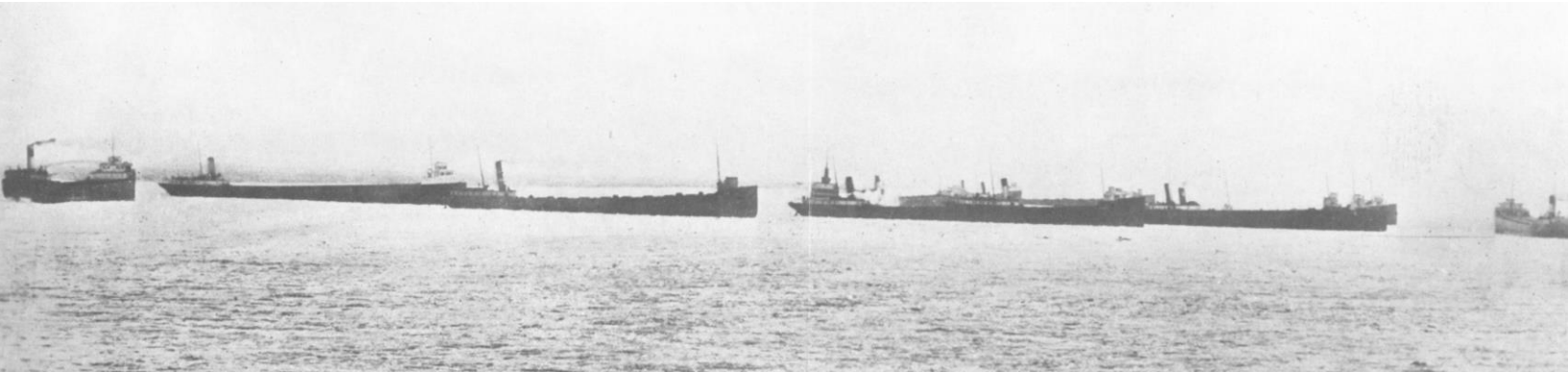
As we approach month eight of the pandemic in the United States, no mariners on Lake Carriers’ member vessels have tested positive for COVID-19.





ICEBREAKING

Despite being a mild winter with warmer than average temperatures on the Great Lakes, ice still formed and commercial vessels still became stuck. One vessel was stuck overnight in eastern Lake Superior until the sole USCG vessel there could assist. Canadian Coast Guard icebreaking assistance for the U.S.-flag fleet and the Canadian fleet in shared waterways was virtually nonexistent. As their two icebreakers struggled to get back into the Great Lakes from the St. Lawrence Seaway and Atlantic coast, the U.S. icebreakers were diverted from U.S. waterways where they were helping U.S. ships, to break ice in Canadian waters for Canadian ships. The question remains, how can the USCG provide icebreaking services in all U.S. and Canadian waters and ports with only a handful of operational icebreaking assets?



"Steamers in the ice field off Duluth Piers, June 6, 1917" from Lakes Carriers' Association 1917 Annual Report.

Congress continues to see the need for a new heavy icebreaker on the Great Lakes and appropriated \$4 million this year, bringing the total to \$14 million, for the USCG to hire the professional employees required to procure the desperately needed vessel. The USCG is slowly responding and has begun to staff that office with acquisition professionals. They have also agreed to re-evaluate their icebreaking performance measurements to better capture ice impacts and their ability to complete the mission with the aging and shrinking icebreaking fleet. Economists calculated the economy suffered a \$1 billion hit due to a lack of icebreaking resources in 2018-2019 winter. Countless times we have shown the economic and national security impact, the danger to our sailors, and still have not been able to make headway with USCG.



Another critical move forward has been Congressional pressure to codify the USCG icebreaking mission into law with specific direction on how well it is to be performed. Its currently an Executive Order that was signed by President Franklin D. Roosevelt in 1936 after the government realized war was coming and the importance of moving raw materials during winter months would be vital to national security. Adequate icebreaking will be crucial as the economy rebounds and ships need to deliver stockpiles of raw material which will sustain the recovery over the winter months.

Want to know more? Visit us online at www.lcaships.com

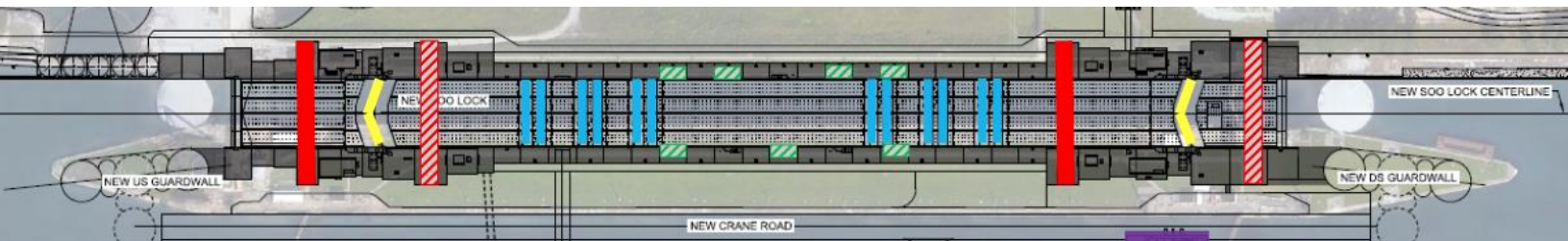


SOO LOCKS

Thankfully, the Soo Locks continue to receive funding for the new large lock through the efforts of so many in government and industry. So far \$241.6 million has been invested. Shovels are finally digging as work has begun on deepening the upstream approach to accommodate today's vessels. Five-and-a-half feet of bedrock, which will total about 300,000 cubic yards, or the equivalent of 30,000 dump trucks, is being removed. The approach walls contract will be awarded shortly with work commencing next spring.

The Corps recalculated their capacity for 2021 construction and design and the resulting "efficient funding" for FY 2021 was raised to \$224.4 million, about \$50 million more than originally presented. The good news is the Corps is moving faster than anticipated. Yet the President's budget request was \$123.2 million. That leaves a \$101.2 million shortfall. While not bad news, it means there is extra work still to be done to get the Corps and Congress to close that gap.

Major rehabilitation projects and annual operations and maintenance on the 51-year old Poe and 78-year old World War II-era MacArthur locks are moving forward but there is still a \$37 million gap to close for FY 2021.



Lock chamber design for the new large lock at Sault Ste. Marie, Michigan.

In the ongoing design refinement for the new large lock at Sault Ste. Marie, Michigan ("the Soo"), five captains of U.S.-flag Great Lakes 1,000-foot lakers ("footers") were invited in May of 2019 to the U.S. Army Corps of Engineers' Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi to run through various scenarios on ERDC's vessel simulators to evaluate approach channel and wall configurations for the new large lock. This resulted in modifying structural components of the lock's infrastructure, improvements to safety for the vessels, and opening discussions on features such as the addition of hands-free mooring to the lock chamber.



Through the Soo: Each year about 76 million tons of cargo valued at \$5.8 billion, transits the navigational locks operated by the U.S. Army Corps' of Engineers in Sault Ste. Marie, Michigan requiring about 10,000 lockages of vessels upbound headed to ports in Minnesota, Wisconsin, the Upper Peninsula of Michigan, and Ontario and downbound loaded with cargoes such as iron ore, coal, and grain for the steel mills, power generation plants, and international destinations.



BALLAST WATER

As noted last year in our 2019 State of the Lakes, the Vessel Incidental Discharge Act (VIDA) was passed by Congress and signed into law by the President in December of 2018. VIDA holds promise to unsnarl years of tangled regulation. The final rules on management and discharge standards from the U.S. Environmental Protection Agency (EPA) are due this December. Then the U.S. Coast Guard (USCG) will take the reins to develop compliance and enforcement rules. The shared goal is protective and practical regulation.

But then there is Canada's tack. Last year Transport Canada published its long-discussed draft regulation on ballast water management to meet their obligation under the International Maritime Organization's 2004 ballast water convention. Canada is a signatory to the convention; the U.S. is not. This has set up a unique situation in the lakes. Since 2008, the U.S. federal government and the states began regulating ballast water management and discharges. However, U.S. EPA, USCG, and seven of the eight Great Lakes states chose to regulate it differently. But in all cases, including the IMO convention, it was the discharge of ballast water that was obviously the focus. Enter Canada 11 years later. They've added a unique twist; they want to regulate the uptake of ballast water, requiring vessels to install treatment equipment even if a discharge will not take place in Canadian waters. This effectively regulates what American vessels do in American waters. The long and short of this is that it makes no sense until you really dig into what the Canadian ploy is, complete economic control of the cross-lakes trade. By forcing U.S.-flag lakers to install technology incompatible with our vessels and unproven in Great Lakes' waters, Canada wants to impart a \$639 million dollar fee. \$639 million is what it will cost to outfit the U.S.-flag fleet with these ballast water management systems. That's \$639 million for technology that has not been shown to work or provide a protective line in the sand against the battle with aquatic invasive species that has been fought to great success in the St. Lawrence Seaway by both the U.S. and Canadian organizations managing the Seaway. Since 2006, no new aquatic non-native species have established in the lakes from foreign ships through the Seaway by the accounts of both governments. The tool? Ballast water exchange, exchanging freshwater that may harbor Great Lakes-compatible aquatic non-native species from foreign ports with salt water that flushes out the freshwater and what remains is killed by osmotic shock. Transport Canada's regulation wants to eliminate this successful program and mandate unproven and unsuccessful technology to consummate their economic grab of the cross-lakes trade. They've even coined a new term to account for mandating installing systems on vessels they know won't work: "deemed compliance."

Binational shared waterways require binational cooperation and harmonious regulation and enforcement without mandating deliberate economic winners and losers. The Federal Maritime Commission (FMC) is an U.S. independent federal agency whose mission is to, "Ensure a competitive and reliable international ocean transportation supply system that supports the U.S. economy and protects the public from unfair and deceptive practices." The FMC voted unanimously to open an investigation into Canada's lopsided regulation of ballast water on U.S.-flag vessels in the Great Lakes. We await their decision.

U.S.-flag maritime shipping on the Great Lakes has a carbon footprint that is 10 times less than trucking and three times less than moving cargo by rail. The 70,000 tons that can be shipped on a 1,000-foot U.S.-flag laker would require 7-100 car unit trains or 2,800 trucks. Lakers can move one ton of cargo from Duluth to Detroit with one gallon of fuel. To that end, investing in Great Lakes maritime's environmentally green and economically blue infrastructure is imperative.



JONES ACT

This year marks the 100th anniversary of the Merchant Marine Act of 1920, commonly called the Jones Act after its primary author, Republican Senator Wesley Jones of Washington. The Jones Act mandates that vessels trading between U.S. ports be built in America, owned by Americans, and crewed by Americans. This law has always been about U.S. economic and national security here and abroad. According to a PwC study commissioned by the Transportation Institute, the Jones Act employs nearly 124,000 Americans across the eight Great Lakes states generating \$30 billion in economic activity and paying \$8.45 billion in good, family-supporting wages. The Jones Act is essential to a strong Great Lakes maritime trade.

To add to the Jones Act Great Lakes fleet, VanEnkevort Tug and Barge's (VTB's) new articulated tug-barge, the MICHIGAN TRADER, built in Sturgeon Bay, Wisconsin at Fincantieri's Bay Shipbuilding, set sail in August and is mated to the tug DIRK S. VANENKEVORT. The MICHIGAN TRADER will have a per-trip capacity of 39,766 net tons. She will join VTB's three other vessels that operate on the Great Lakes, mainly in the stone and iron ore trade. Interlake Steamship Company's new self-propelled vessel's keel laying ceremony was held in June at Bay Shipbuilding. The vessel was named the MARK W. BARKER after Interlake Steamship's president. The BARKER is on track for a 2022 sailing. These investments show the strength and national need for Great Lakes commercial navigation, the backbone of American industry, infrastructure, and power generation.



DREDGING

The Harbor Maintenance Trust Fund (HMTF), funded by an *ad valorem* tax paid into by shippers, is the life blood of the U.S. Army Corps of Engineers' mission to keep the nation's waterways and ports open to commercial navigation, including dredging. Each year the Corps must remove about 3.3 million cubic yards (MCY) of sediment which naturally accumulate in the shipping channels. With adequate funding, it's manageable. But for too many years it wasn't and over 10 MCY of material still clogs our waterways. Inches of depth in the channels and our ports matter. For every inch of draft lost to accumulated sediment, 270 tons of cargo are forfeited for each trip made by a 1,000-foot vessel. Bills in Congress today include language to remedy the yearly ups and downs of funding by setting aside a full 12 percent of all funds deposited into the HMTF each year to the Great Lakes. We have pushed for this for years and are cautiously optimistic of passage.

On July 1, Ohio's ban on dredge material disposal into Lake Erie came into effect. Each year, harbors on Ohio's north shore, and throughout the lakes, must be dredged to keep the shipping channels open so commodities can move in and out of the ports. Nearly 1.5 MCY of material are dredged annually from Ohio Lake Erie ports primarily from the Maumee River in Toledo, Cuyahoga River in Cleveland, and six other commercial ports along the shore. Historically, much of the dredged material was placed in the open waters of Lake Erie. Ohio ports and Lake Carriers' are working with the Ohio Department of Natural Resources, Ohio Environmental Protection Agency, and the U.S. Army Corps of Engineers to integrate innovative beneficial reuse operations including agricultural placement, construction additives, habitat restoration, and beach nourishment.



2019 CARGO STATISTICS

The 2019 U.S.-flag sailing season was strong

beating the 5-year average by nearly 5 percent across all cargoes and year-over-year beat 2018 tonnage by 7.5 percent. 2020 looked ready to be another robust year for the U.S.-flag Great Lakes fleet until the underlying ramifications of COVID-19's hit to the economy was realized. A mid-year look at cargo totals through the end of June 2020, limestone stood at 9 million net tons and was down 16 percent from 2019 and 7.4 percent from the 5-year average. The 17 million tons of iron ore moved on the Great Lakes through the end of June is 15 percent below 2019 and 13.4 percent below the 5-year rolling average. Mid-year raw steel production in the U.S. year-to-date stood at 66.1 percent capacity down from 80.9 percent at the same spot in 2019. The U.S.-flag Great Lakes fleet is feeling the pinch.

2018	2019 (net tons)	5-year Average
+8.5%	Iron ore 49,683,474	+11.7%
+9.7%	Limestone 24,086,722	+10.2%
-4.2%	Coal 11,318,946	-23.0%
+12.1%	Cement 3,288,509	+2.4%
+101%	Salt 923,476	-17.5%
-16.2%	Sand 413,040	+12.8%
+11.5%	Grain 289,728	+6.3%
+7.5%	TOTAL 90,003,895	+4.6%

Commercial Great Lakes maritime trade sustains:

- 147,464 U.S. jobs
- \$10.5 billion in salaries
- \$4.6 billion in local, state, and federal taxes
- \$28 billion in regional business revenue
- \$35 billion in Great Lakes economic impacts

On the Great Lakes:

Annually about 160 million tons of cargo, valued at \$15 billion, moves on the Great Lakes in commercial ships. The U.S.-flag fleet moves about 90 million tons of those cargoes each year on vessels as long as 1,000 feet, carrying more than 70,000 tons each trip.

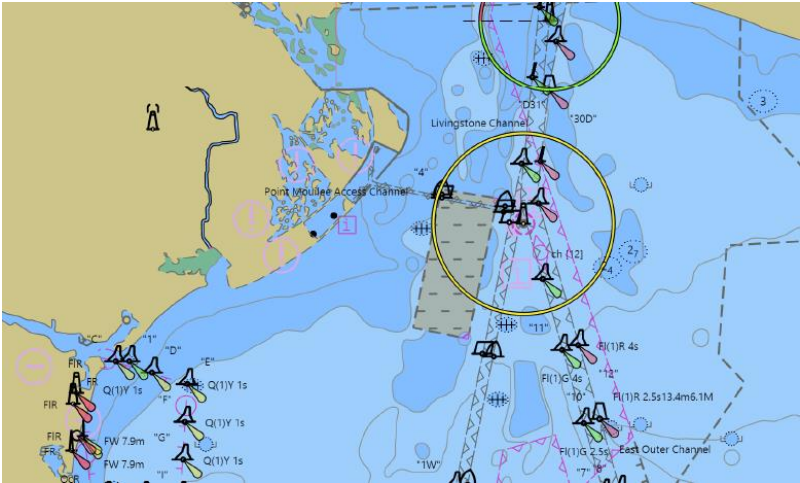
Winter maintenance:

More than \$97 million in maintenance and modernization was completed at multiple Great Lakes shipyards during winter layup in 2020.



National Marine Sanctuaries: Thunder Bay National Marine Sanctuary, established in 2000 and administered by the National Oceanic and Atmospheric Administration (NOAA), was the first Sanctuary on the Great Lakes and at that time the only one dedicated to the preservation of shipwrecks. The Great Lakes are estimated to have over 6,000 wrecks resting on its lakebed. Within its 4,300 square miles in northwestern Lake Huron, Thunder Bay is estimated to include at least 200 wrecks. This Sanctuary is not only dedicated to the ships but also the crews who sailed them. Countless sailors have lost their lives over the centuries battling Great Lakes winds, waves, gales, and ice as severe as any throughout the world. Lake Carriers' is a member of the Sanctuary's Advisory Council. Two other Sanctuaries will be coming online in the Great Lakes as early as 2021: Wisconsin Shipwreck Coast in Lake Michigan and the other at the eastern end of Lake Ontario. Both are dedicated to preserving the shipwrecks. Lake Carriers' is committed to the preservation of these wrecks and educating the public on the importance of commercial maritime and its history throughout the Great Lakes region, nationally, and internationally. These Sanctuaries are a key component of that story.

Course Lines: First created 113 years ago by the Lake Carriers' Association in response to increased Great Lakes vessel traffic and rising collisions, the recommended commercial marine routes have vastly improved maritime safety. Over the past year and a half, LCA partnered with Master Mariner Captain Tim Dayton, NOAA, and the Canadian Chamber of Marine Commerce to update more than 400 routes on 100 plus international electronic charts. These routes have now gone from paper to electronic navigational charts as the marine industry continues to embrace the advances of a digital age.



*Helping the U.S.-flag fleet navigate the Great Lakes since 1880.
The greatest ships on the Great Lakes.*



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