

CONTAINER REBOOT | SUN POWER | TRACKMOBILE | SEASON UPDATE



NORTH STAR PORT

FALL 2021



A PUBLICATION OF THE



**Duluth Seaway
Port Authority**

WWW.DULUTHPORT.COM

THE HARBOR LINE

In ordinary times, when freight transportation is working well, the general public doesn't think about it, the press doesn't write about it, and people don't talk about it at social gatherings. However, this is no ordinary time. One can't listen to five minutes of news, open a newspaper, or gather with friends without encountering comments about global supply chain disruptions. Most discussions focus on the massive snarls at a handful of coastal container ports, associated ripple effects in their hinterlands, and effects to personal consumption patterns. Proffered solutions focus on providing more resources to fix associated bottlenecks. I'd like to use this current crisis to ask two questions that drive at longer-term solutions. Both questions enter complex waters that I don't have room to fully explore here, but let the discussions begin.

Question 1: Why aren't we questioning our nation's reliance on Asia as a source for most of our consumer products? What if we framed the problem as an ancillary effect of a record-breaking trade imbalance and seriously pursued onshoring and nearshoring to help ease this imbalance?

U.S. Transportation Secretary Buttigieg's recent announcement of \$5 billion in loans to modernize California seaports, while optically responsive to the crisis, can also be seen as subsidizing a system that encourages importing goods from Asia, exporting U.S. jobs and national security interests, and expanding an already alarming trade deficit. Although it will require difficult, extensive and uncomfortable discussions and relaxing of firmly held positions on the right and left, we should commit to strengthening the U.S. and United States-Mexico-Canada Agreement partner manufacturing base and the supporting transportation systems (including Great Lakes shipping, of course).

Question 2: Why aren't we questioning our nation's heavy reliance on a handful of coastal ports to import and export our goods?

The economies of scale at these ports are reaching the margins, and many are vulnerable to the increasing

intensity and frequency of major storm events associated with climate change. For these reasons and more, it's good business to mitigate risk by looking to alternative, complementary systems rather than placing the proverbial egg collection in only a few baskets.

We should be considering how we can more fully use our inland waterways to move goods by water (the most environmentally friendly and efficient transportation mode for long distances) deeper into the continent before shifting to land-based modes of transportation. The Great Lakes-St. Lawrence Seaway System is particularly attractive, as it provides uncongested access to the North American heartland. That said, supply chains are notoriously difficult to bend. Shippers, steamship lines and freight forwarders all tend to use familiar established paths and are understandably wary of using unfamiliar routes, flinching at the first sign of additional complexities. However, shippers are seeking alternatives right now, in this time of crisis. Now is the time to position the Great Lakes-St. Lawrence Seaway System as a key alternative or pressure-relief valve for coastal port congestion.

The U.S. House of Representatives passed the \$1.2 trillion Infrastructure Investment and Jobs Act on Nov. 5. The Senate approved a nearly identical bill in August, and President Biden has signed the bill into law. It includes historic dollar amounts devoted to transportation infrastructure over the next five years, including funding for highways, bridges, seaports, waterways and freight rail. The goal of this act is to rebuild American competitiveness through infrastructure improvement. To truly succeed in this effort, we need serious thought about American competitiveness, a comprehensive vision of what that means and a deep commitment to the full array of infrastructure systems needed to support that vision. ⚓



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About North Star Port

The Duluth Seaway Port Authority produces this quarterly magazine. Jayson Hron is the publisher. Editorial assistance provided by Julie Zenner and Jennifer Bahl Hron; graphic design by Erin Makela.

Inside your NORTH STAR PORT

Fall 2021 / Volume 54, Number 4



On the covers



On the front:

Sailing aboard the *Stewart J. Cort* at sunset on Lake Superior.

On the back:

Interlake Steamship Company's thousand-footer *Mesabi Miner* enters Duluth in the early morning hours, bound for the CN iron ore dock.



Adam Bjornberg



The *Voyager II*, a boat that provides mail and passenger service to Isle Royale National Park, sailed into the Duluth Ship Canal on the afternoon of Oct. 1, 2021, between the departure of *Edenborg* and the arrival of *Federal Ruhr*. *Voyageur II* is wintering in the Port of Duluth-Superior.

Glenn Blaszkiewicz

David Schauer



Printed on 10% post-consumer waste paper.



Maritime container traffic gets a reboot in Duluth



BY JAYSON HRON

If you're a skiing enthusiast of a certain vintage, the Raichle brand of ski boot may occupy a nostalgic place in your heart, or perhaps even your closet.

The Swiss-made boots emerged on American slopes in the 1960s. A fiberglass-shell Red model careened downhill in February 1968 as a garishly colorful departure from the norm. Maine-based G.H. Bass & Company distributed Raichle boots in the United States, and as demand surged nationwide, its salespeople called Duluth for help.

By November 1968, approximately 80,000 pounds of Raichle boots landed at the Head of the Lakes via shipping containers. It marked the dawn of a new era in maritime shipping at Duluth's Clure Public Marine Terminal, with containers becoming a common sight for the first time.

"I look forward to an increasing volume of traffic moving in containers through our port," said Robert H. Smith, then the port's traffic director. "Whether we get one container or a hundred, we have the facilities and ability to process them promptly."

Duluth's container capability became a key advantage in the G.H. Bass supply chain, a fit as fine as the company's footwear.

"Duluth will be a major factor in our shipping and distribution plans for the future," said Welcome Sunding, a G.H. Bass sales representative. He calculated a 66 percent savings on freight costs by using the Seaway to Duluth and distributing from a central warehouse rather than the East Coast.

Buoyed by that success, inland container shipping continued its nascent rise, and within a decade, Duluth opened the Great Lakes' first full-service container facility.

Today, 60 percent of the world's goods move by container. In Duluth, that traffic ebbed and flowed through the decades. Waterborne container shipping became mostly a game for massive vessels too big for the Great Lakes-St. Lawrence Seaway System, and new regulatory requirements for container examination further dampened the



Red hot



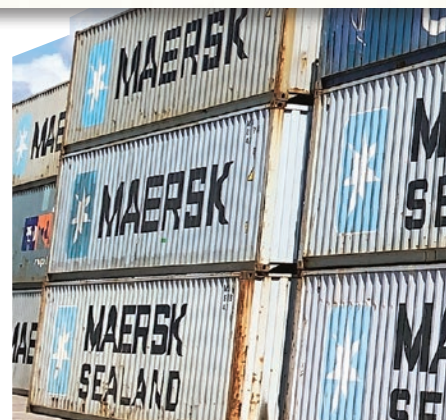
Art Furrer, renowned exhibition skier, has selected The Red Boot for his demonstrations.

The sensational new Raichle Red Boot . . . center of attention at the Winter Olympics and the most widely acclaimed boot on the international ski scene. Over three years in development, this revolutionary Raichle boot has been tested and proved on the world's toughest race courses. Now, for the first time, Raichle bootmakers bring you a unique, center-opening, molded fiberglass boot that offers unequalled control and comfort — a foot-to-ski turning response faster than anything you've ever experienced. Designed to provide total and unvarying lateral support, the Raichle Red Boot

features a rigid, 4-buckle, water-tight outer shell that can't stretch or break down. A separate, firmly padded, lace inner boot with built-in racing heel may be worn by itself without the fiberglass outer shell. See the superbly designed Raichle Red Boot now at your nearest Raichle ski shop or write for complete information. G.H. Bass & Co., Wilton, Maine 04294.



Free Film: "The Red Boots are Coming" — 16mm Warren Miller color movie for group showings. Write Movies, G.H. Bass & Co., Wilton, Maine 04294.





business. In 2017, Duluth launched a land-based road-and-rail container operation to keep pace with a slice of the intermodal opportunity, but waterborne container business remained a regulatory impossibility. Only private, small-volume container shipments holding parts for specific project cargoes were allowed to arrive by water.

That all changed in October 2021, with the announcement that Duluth Cargo Connect gained approval to once again accept steamship-owned international shipping containers transported by waterborne vessel. And just as it did in the Swinging Sixties, Duluth can now handle an almost unlimited array of raw materials, finished goods, foodstuffs or other retail items transported via waterway in shipping containers. This opens up new possibilities for shippers, manufacturers and retailers to bypass coastal bottlenecks and move all types of cargo directly to and from the Midwest via an uncongested inland seaport.


“Given global supply chain disruptions, it’s an opportune time to provide this expansion,” said Deb DeLuca, executive director of the Duluth Seaway Port Authority. “The Great Lakes-St. Lawrence Seaway System represents a pressure relief valve for North American freight movement that should transcend this pandemic bubble. It’s a great alternative for shippers looking to reach the Upper Midwest directly.”

Duluth is unique as North America’s furthest-inland seaport, close to major markets like Chicago, Des Moines, Fargo-Moorhead, Milwaukee and the Twin Cities. With the launch of this new maritime container capability, Duluth is also the only U.S. Great Lakes seaport west of

Cleveland that is capable of handling containers by direct water connection. That combination of geography and capability creates a great synergy for the port, for shippers looking to reach those markets, and also for manufacturers in those markets looking to export via water.

“Our new Sea Cargo Facility status opens the door for greater container volume and cargo diversity, which will complement our existing land-based container operation, providing great reach throughout the Upper Midwest and beyond,” said Jonathan Lamb, president of Duluth Cargo Connect. “We’re excited about expanding our container services to include a direct maritime connection over our docks, which will give our customers even more opportunity and flexibility in their supply chains.”

DeLuca and Lamb cited the many added services Duluth Cargo Connect offers as a significant benefit to shippers. Beyond basic handling and customs clearance, the terminal features Foreign Trade Zone status, capability to stuff/de-stuff containers on-site, heat-treated dunnage certification for export packaging, a truck scale, reefer plugs, robust highway and rail connections and the most environmentally efficient way for containers to connect in and out of the Midwest.

“This idea of containers reaching the Midwest direct by water isn’t new,” said DeLuca. “It’s been part of the Clure Terminal vision since the mid-1960s, but the time is right to bring that vision into a modern focus, and we’re well positioned to do it.” 



American Precision Avionics harnesses sun power

BY JULIE ZENNER

There's a buzz in the air at Duluth's Airpark. It surrounds a recently completed solar energy project at American Precision Avionics (APA). Bees and butterflies flit beneath three massive arrays of photovoltaic panels, drawn to a surrounding pollinator garden of native forbs, grasses and sedges. The scene is electrifying—in more ways than one.

Harnessing the sun's power seems fitting for a company that specializes in custom wire and cable harnesses for the aerospace industry as well as other industrial and agricultural customers. APA's main customer is Cirrus Aircraft, located nearby at the Duluth International Airport. This proximity is just one advantage of APA's location at Airpark, a 300-acre light manufacturing industrial park, developed and managed by the Duluth Seaway Port Authority to advance regional economic development, a key aspect of the Port Authority's mission.

APA is the first business in Airpark to go solar. The grid-connected system features 170 panels at 400 watts each. Its standard output is 68kW DC (with up to 20 percent bi-facial gain for a maximum output of 81.6kW DC). The system went online in June 2021 and is designed to meet 100 percent of APA's energy needs, a major accomplishment that started with one employee and a bright idea.

"A year and a half ago, I got interested in renewable energy because I wanted to go camping and had a CPAP machine (for sleep apnea) that needed power," said Kellen

Bolander, engineering and technology manager at APA. "I bought a solar kit and got some old batteries from hospital equipment to run it while I was camping."

Bolander didn't stop there. He began researching solar energy and studied the technologies involved. Then he pitched a solar energy project to APA owner and president Dave Scheck during a quarterly meeting about how to make the company operate more efficiently.

"I knew as soon as I proposed it that Dave (Scheck) was interested," Bolander said. "His eyes got as big as

watermelons. He was hooked."

Scheck has a longstanding interest in energy efficiency and renewable energy. He owns several businesses in North America, including L.E.D. Rite, LLC, in Hampshire, Illinois, a provider of LED lighting fixtures. He knows the first step toward an investment in solar energy is energy efficiency.

"If you want an efficient solar energy system, you have to start with an energy-efficient operation," Scheck said, noting that APA's facility was built to be energy efficient from the thickness of its exterior walls to its southern exposure designed to maximize solar gain. "(As we began looking at solar energy) we worked hard to convert lights to LEDs to reduce energy consumption."

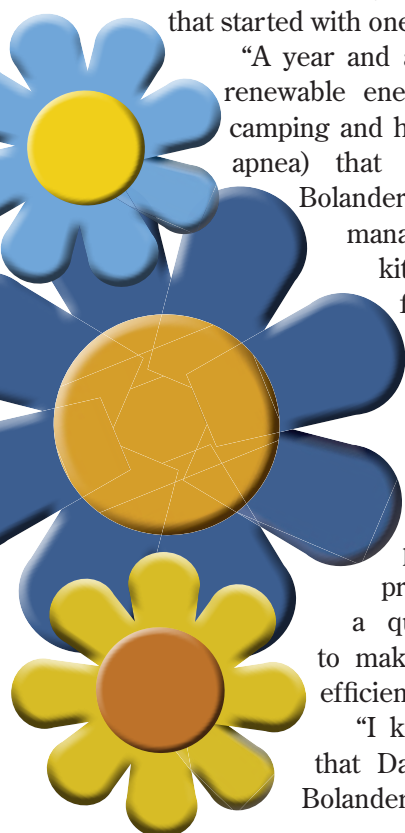
Bolander served as project manager and developed the business case for solar electric. He worked with Minnesota Power to complete energy analysis and identify available rebates and incentives that would reduce upfront costs and improve payback. Duluth-based Wolf Track Energy was hired to design and install the system.

APA chose to use Minnesota-made photovoltaic panels manufactured by Heliene in Mountain Iron. The panels are bi-facial, or two-sided, to collect reflected sunlight—a distinct advantage in winter when Duluth's ground is covered in reflective snow. A pollinator garden was planted around the arrays to attract pollinating insects vital to maintaining healthy, sustainable ecosystems.

Sustainability is a core value at APA. When the company first located in Airpark in 2006, it had fewer than 10 employees. Today, it employs approximately 65 people.

"Our strategy is always long term in nature; that is the foundation of this business," Scheck said, noting that safety is APA's top objective. "Our definition of safety not only includes our employees, customers and suppliers, but also the safety of our community, our environment and our world. From that perspective, installing this solar energy system was definitely the right thing to do."

Airpark offers an ideal setting for companies like APA. The Duluth Seaway Port Authority has been involved in Airpark since the late 1970s, when the City of Duluth requested that the Port Authority aid in development of an industrial park near the Duluth International Airport. Today, Airpark houses nearly 40 private companies






Lynn Andrews, general manager of American Precision Avionics, and Kellen Bolander, engineering technology manager, toured APA's solar energy project. Bees and butterflies flit amongst the flowers beneath photovoltaic panels.

with more than 900 employees. Businesses are diverse and include printers, a parcel cross-docking facility, construction supply firms, a variety of engineering and professional offices, and aerospace machining and component providers like APA.

"Our location in Airpark serves us well," said Lynn Andrews, general manager of APA. "Our main customer, Cirrus Aircraft, is nearby, so we can easily coordinate with them and perform service calls and deliveries. We also coordinate with SCS Interiors across the street to make a product for Cirrus."

"Duluth needs the type of industrial jobs represented by APA—living-wage jobs with benefits that allow workers

to save for college, save for retirement and put money back into the community," said Kate Ferguson, director of trade and business development for the Duluth Seaway Port Authority, which still owns 15 properties in Airpark, many of which are vacant areas awaiting development. "APA serves as a critical link in Duluth's economy, and now they power their work with regionally supplied solar panels. It is a great Minnesota story."

That is the real buzz at Airpark. 

For details on Airpark parcels available for sale, please contact Kate Ferguson, Duluth Seaway Port Authority director of trade and business development: 218-727-8525 or kferguson@duluthport.com.

SCENES OF THE SEASON



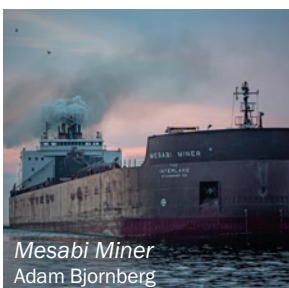
Sykes at sunrise

Adam Bjornberg



Marine 19 of the Duluth Fire Department, foreground, and the Algoma Transport

Adam Bjornberg



Mesabi Miner
Adam Bjornberg



Victory tug and barge Maumee

Chris Mazzella



Arneborg

Scott Bjorklund



Honorable James L. Oberstar

Paul Schinocca



Alpena

Adam Blomberg



Ashtabula barge and tug Defiance

Chris Mazzella



Radcliffe R. Latimer

Adam Blomberg



James R. Barker departure and H. Lee White arrival

Adam Blomberg



Arthur M. Anderson

Adam Blomberg

SEASON UPDATE

FALL 2021




October closed in the Port of Duluth-Superior with total tonnage (26,024,364 short tons) tracking 2.5 percent ahead of the five-season average and 33 percent better than the COVID-slowed 2020 pace.

Iron ore remained a hot commodity, with more than 2 million short tons leaving the port in October. That pushed Duluth-Superior's season total to 16.4 million short tons, which exceeded the five-season average by 16 percent. According to the Lake Carriers'

Association, for the Great Lakes as a whole, the year-to-date iron ore trade stood at 42.9 million tons through October, an increase of 32.7 percent compared to the same point in 2020.


Looking beyond iron ore, inbound cement tonnage continued its climb, with nearly 35,000 short tons arriving in October. For the season, Duluth-Superior has welcomed more than 241,000 short tons of cement, which exceeds the five-season average by 67 percent.



The *Algoma Discovery* docks Sept. 4 at the CN iron ore facility in Duluth under the good fortune of a rainbow stretching from the Minnesota side to the Wisconsin side of the harbor.

Offsetting a down year for grain, coal and petcoke rounded out the autumn tonnage highlights, with nearly 765,000 short tons moving through the port in October. Season-to-date, Duluth-Superior's coal and petcoke trade totaled nearly 6 million short tons.

Positive, but on a smaller scale, nearly 6,000 short tons of general cargo also transited the port in October, bringing the season-to-date total within range of 2020's five-season high in that category (41,256 short tons).

"The flexibility we offer shippers to switch between modes of transport to and from our multimodal general cargo terminal has been an advantage for them in navigating the global supply chain challenges of 2021," said Deb DeLuca, executive director of the Duluth Seaway Port Authority. "So far, it's truly been a season that emphasizes the importance of supply chain reliability and versatility, and we deliver on those in Duluth-Superior." 

Drought and light

Lively shoots of green spring grass withered this past summer in Duluth, thirsty for rain that rarely fell.

The National Weather Service declared it one of Duluth's driest summers, with rainfall barely exceeding half of the 12-inch average. The final count—6.98 inches—matched the summer of 1934 among the city's most parched. This precipitation paucity, combined with record warmth, intensified drought conditions which extended across the Upper Midwest.

Not surprisingly, wheat crops suffered in the nation's breadbasket, a plight in part reflected by the Port of Duluth-Superior's lagging grain tonnage totals. Fewer than 565,000 short tons transited the port through October, a total well below the five-season average.

It harkened back somewhat to the mid-1930s, when a dry and dreary 1934 grain season dwindled into an even worse 1935.

Feast to famine

Aiming to reverse crop overproduction of the late 1920s and early 1930s, United States President Franklin D. Roosevelt signed the Agricultural Adjustment Act in May 1933. This created the Agricultural Adjustment Administration, which among other things, paid farmers to limit production. The net effect was a reduction in American wheat production of almost 300 million bushels from 1933 to 1935, but the government action accounted for only about 7 percent of the decline. Crop-killing drought did the rest.

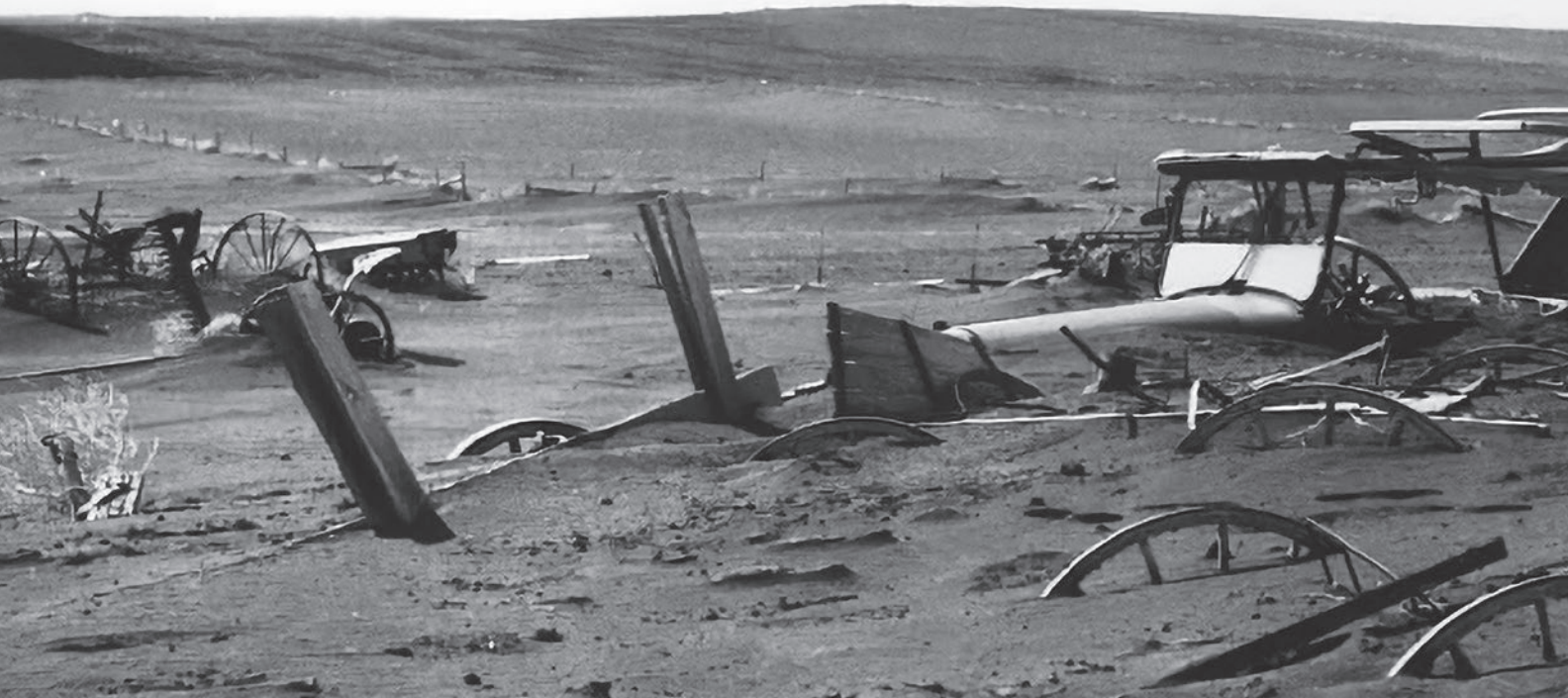
A 2014 NASA study deemed 1934 as North America's "worst drought of the last thousand years." Not only was it

the worst, it was 30 percent more severe than the runner-up drought (1580). Attributed to an unusually tenacious West Coast high-pressure system that repelled rain from the Midwest, combined with poor land management practices in the nation's midsection, the Dust Bowl turned the Dakotas and western Minnesota into a locust-filled kiln for crops. The Lake Carriers' Association annual report described it as an "almost complete ruination," so complete that the United States became an importer of wheat, barley, oats, Latvian and Polish rye, and Argentine flax. According to author John W. Larson in his *History of Great Lakes Navigation* (1983), this importing of grain was an "astounding development," with almost 20 million bushels sailing upbound through the St. Lawrence River in 1934. A portion of it reached the Port of Duluth-Superior, which was the only Great Lakes port to float forward more than a million bushels of rye that season. Of that total however, only 54,600 bushels were grown in 1934. The majority was from 1933 production, as early-season grain movement typically involves emptying elevators of holdover grain from the previous year.

Seeing the light

Sandwiched between two historically dry years, 1935 proved to be a bit brighter in Duluth—but not in terms of grain tonnage.

"The bare statement that the lake grain movement of 1935 was the lowest of any year since 1920, and marked the eighth consecutive year of progressive decline, does not fully reflect the deplorable curtailment in the shipments of United States-grown grain from the elevators on Lake



BY JAYSON HRON

Michigan and Lake Superior,” wrote the Lake Carriers’ Association in its annual report.

The devastating drought of 1934 and a black rust plague in the spring of 1935 sank Twin Ports grain tonnage (874,321) to its lowest total since 1894 (823,232). The *Duluth News Tribune* wrote that a considerable part of the wheat crop “only represents animal feed.”

But it wasn’t all doom and gloom in 1935. The federal government’s Resettlement Administration began planning its Hermantown home-steading program, locally known as the Jackson Project, in order to provide an opportunity for families to gain a financial foothold in the Duluth suburb. At the same time, Duluth merchants started seeing a pronounced uptick in business for the first time since the stock market crash of 1929.

“They’re not skimping and saving anymore,” a department store manager told the *News Tribune* in early September. “They’re buying naturally.”

Progress also permeated the harbor in September, as a robust dredging effort deepened the shipping lanes to 26 feet—the deepest of any Great Lakes port at that time, according to the *News Tribune*.

The brightest news, however, came from the sports pages:

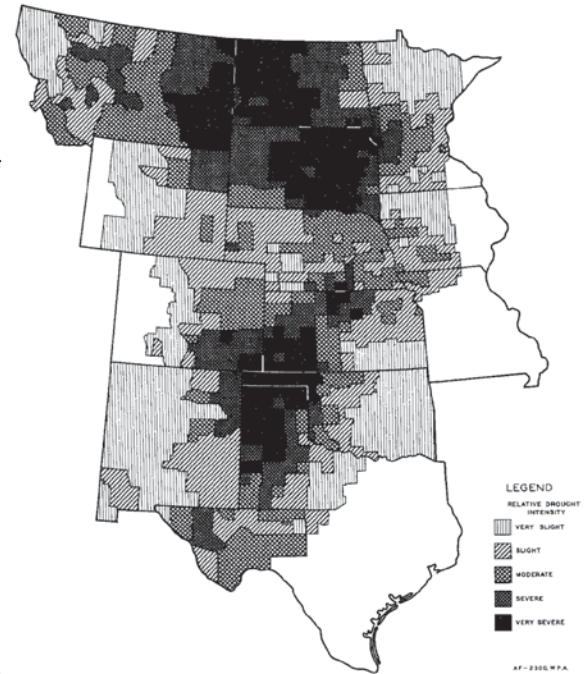
“Under glaring giant floodlights, night football will be offered to Zenith City gridiron devotees for the first time, this season at the Public Schools Stadium,” beamed the *News Tribune*.

Eight light poles and some 72,000 watts of illumination shined Sept. 20, 1935, as Crosby-Ironton met Duluth Denfeld in the city’s first-ever night football game. More than 4,000 spectators joined in the spectacle, taking advantage of new seating sections that doubled capacity at the West Duluth gridiron grounds.

Using a special white football for improved visibility at night, Denfeld’s Dick Hamm scored all three of the game’s touchdowns in a 21-0 Hunters victory.

It was indeed a sign of brighter days to come—and nights, too—not only in Duluth, but for the nation as a whole. ⚓

FIG. 7—COMBINED INDEX OF DROUGHT INTENSITY
AVERAGE OF FIVE INDICES
1930–1936



Seasons of Yore Sidelines:

Max Burnell, Head of the Lakes Hilltopper

BY JAYSON HRON

Herman “Max” Burnell missed playing under the lights in Duluth by a single season, matriculating from the Zenith City to the University of Notre Dame in 1935. By then, he was already a local legend, an orphan who rose to dominate the drought-hardened gridiron.

Thrice named All-Area by the *Duluth News Tribune*, Burnell trampled records as a Cathedral High School senior in 1934, leading the Hilltoppers to an undefeated Head of the Lakes championship. In the regular season finale, a 7-0 victory over Denfeld High School, Burnell rushed 32 times for 108 yards, passed for a few more yards, caught a pass, punted and intercepted a wayward Hunters throw. For the season, his Hilltoppers outscored high school opponents by a combined 99-12 in six contests. Cathedral’s only defeat came in an end-of-season exhibition game against the St. Mary’s College freshmen in Winona, Minnesota. Afterward, Duluth-area coaches unanimously selected Burnell as the region’s most valuable player. The *News Tribune* declared him captain of its annual “Mythical Eleven” All-Area Team.

His next uniform was that of the Fighting Irish, a team with which Burnell would earn two varsity letters before his graduation in 1939. Five years later, while coaching high school football in Illinois, Burnell signed with the NFL’s Chicago Bears, starting a single game at quarterback on Nov. 19, 1944.

For all his considerable playing exploits, the former Duluthian made his biggest mark as a coach. He patrolled the high school football sidelines for 36 years in Illinois, Texas and Michigan, winning more than 300 games. According to the *Chicago Tribune*, Burnell’s St. George (Illinois) High School team won a mythical national championship in 1943 when they traveled by train to New York’s Polo Grounds and topped New York state champion Mount St. Michael 25-20 after trailing 14-0 in the game’s first minute. The Burnell-led Dragons won all-city titles in 1943 and 1953, in addition to several Catholic League championships.

At a banquet honoring Burnell in 1990, Phil Zera, one of his former players, told the *Tribune*, “Everyone knows that he could draw X’s and O’s better than anyone who ever coached in the Chicago Catholic League. What is often forgotten, and of much greater importance, is the type of men he developed. Ask any of the 200 St. George High School graduates in this room tonight what role Max Burnell played in their lives, and I guarantee Coach Burnell will be first or second on everyone’s list.”

Described as a man of deep faith, high morals and unquestioned loyalty, it was high praise indeed for a father figure who lost his own parents in 1926, when he was only 12 years old.

Born in Duluth, Burnell was orphaned in Bellingham, Washington, and how he returned to Duluth is a mystery. The city’s Christian Brothers Catholic community cared for him, eventually enrolling Burnell at Cathedral (now known as Marshall School), where he became an honors student and five-sport letterman before graduating to Notre Dame.

Burnell coached his last high school football game in 1979. Afterward, he worked as a security guard in Texas, living near his daughter and not far from his son, who played football for Notre Dame in the early 1960s. Burnell passed away in 2004, at the age of 90. ⚓



Duluthian Max Burnell catches a pass during practice at the University of Notre Dame in 1937.

TOOLS OF THE TRADE

TRACKMOBILE

If you ran it straight and stacked it vertically, the rail at Duluth's Clure Public Marine Terminal would stretch almost to the peak of Mount Everest. That's more than five miles of rail, and unlike Mount Everest, it's meant to be easily traversed. Hundreds of railcars roll through the Clure Terminal every month, connecting with a choice of four Class I railroads to carry cargoes across North America. All of that activity means a lot of track-switching and railcar movement on tight, terminating rail spurs, which would be tedious if not for a tool called the Trackmobile.

Invented in 1948 by Marshall Hartelius, an engineer and former United States Navy pilot, the Trackmobile began as an in-house project at Whiting Corporation in Harvey, Illinois. Whiting asked Hartelius to modify an old industrial locomotive that was frequently trapped on dead-end rail spurs, losing hours of productivity. Hartelius instead designed a replacement for the cumbersome locomotive, creating an agile prototype vehicle dubbed the "mule," with hard rubber tires to move by road and flanged steel wheels for rail. It was an immediate success, helping switch railcars in a fraction of the time. Hartelius's solution eventually became Trackmobile. Today, more than 11,000 Trackmobile units serve in more than 60 countries. One of those is the Trackmobile Viking, an especially nimble model rolling for Duluth Cargo Connect, often with Steve Lambert at the controls. We asked him more about this mustard yellow dynamo.

North Star Port: How long have you worked with the Trackmobile? **Steve Lambert:** About four years. We bought it used in 2017. It was built in 2013.

North Star Port: What does the Trackmobile do and why is it important? **Steve Lambert:** It moves railcars around the terminal, which is an important job at a multimodal cargo hub. We move hundreds of railcars every month—empty cars, cars loaded with cargo—and that requires moving them to different locations and different tracks throughout our facility. Some railcars weigh up to 220,000 pounds loaded, so moving them requires something powerful, like a locomotive. But locomotives are expensive and have limitations. They can't drive off-rail and they can't turn in tight spaces. The Trackmobile is built to travel on road or on rail—it's like an all-terrain vehicle—and it's agile, so you can turn in a crowded railyard or alongside a warehouse. With the Trackmobile, we're more flexible and more efficient.

North Star Port: How would rail cars get moved without a Trackmobile? **Steve Lambert:** You could move them one at a time with a forklift and straps.




North Star Port: How many can you move with the Trackmobile? **Steve Lambert:** Depending on the load weight, the maximum would be approximately 12 cars at a time on a dry track. We've moved eight at a time.

North Star Port: What's the most challenging aspect of operating the Trackmobile? **Steve Lambert:** Every day is a different challenge, but one common issue is the weather. Traction is important with the Trackmobile, not only for pushing, but also for stopping. If the track is wet or there's heavy frost or snow, you have less traction and the stopping distance increases. If you're moving six cars in wet conditions, it might take 40 or 50 feet to stop. In dry conditions, it might be half that distance. So you need to be aware of those factors when you're operating the Trackmobile, and also making sure there's nobody on the track.

North Star Port: What's the maximum speed? Could it win a race? **Steve Lambert:** Depends what's racing against it. Maximum speed on rail is 14 miles per hour. It's 8 miles per hour on the rubber. If you're pushing cars, it's 3-5 miles per hour, tops. Everybody has a different pucker factor, but those are the guidelines. It's not a dragster.

North Star Port: Does it have a heater for winter operations? **Steve Lambert:** Yes. It has an adjustable heater. You can operate it in a t-shirt if you want.

North Star Port: Has the Trackmobile ever been used for something that wasn't necessarily its intended purpose? **Steve Lambert:** One of our operators uses it as a motorized weed-sprayer. He can drive along on the track and simultaneously apply weed-killer. That's about as exotic as it gets for the Trackmobile. 

Global Trade: A delicate balance

BY KELSEY JOHNSON, PRESIDENT, IRON MINING ASSOCIATION OF MINNESOTA

What a difference a year makes. Over the last year, we've seen the economy reopen, with goods and materials flooding through stores, shops and our ports.

The Soo Locks, which are the critical link between iron and steelmaking, have embarked on a significant infrastructure expansion, which will double their capacity.

People, too, have activated in the past year, getting back to doing more of what they did before COVID-19.

In addition to all of this, some other major happenings in the last year included Minnesota Power announcing that it was able to achieve 50 percent renewable energy on its grid. Since that's the power source for our mines, it means that Minnesota's iron production is now 50 percent renewable. Combined with the efforts of the steelmaking industry, America's steel is now 50 percent greener than any competing nation. That's an important distinction.

Another notable awakening that emerged through the pandemic and into 2021 was the difficulty posed by far-flung production streams. We've discovered that sometimes global trade can be both a blessing and a curse.

Throughout the pandemic, we learned more about where the products we use in our daily lives come from and the incredible transportation system that gets each item to us. The flow of global trade has never seen so many constraints, from COVID-induced factory shutdowns to coastal ports jammed with materials to a canal blocked by a super cargo ship. These unfortunate situations brought

an increased awareness worldwide of the delicate balancing act of global trade. For many, it's been an eye-opener; an opportunity to gain a much deeper understanding of how supply chains affect our everyday lives. Having a better understanding of where products come from and how they arrive at my door has helped me appreciate the incredible system the United States has built.

A year ago, we had a presidential election and some major changes in the political climate. Thankfully, one thing has remained largely the same—the Section 232 filing, which pertains to global trade.

Originally filed by the Trump administration, Section 232 probably didn't get most people excited, but it was a game-changer for Minnesota's iron mining industry. Today, with the Biden administration, the Section 232 filing remains in place (though with some modifications announced early in November 2021). Why is that? Because it's working.

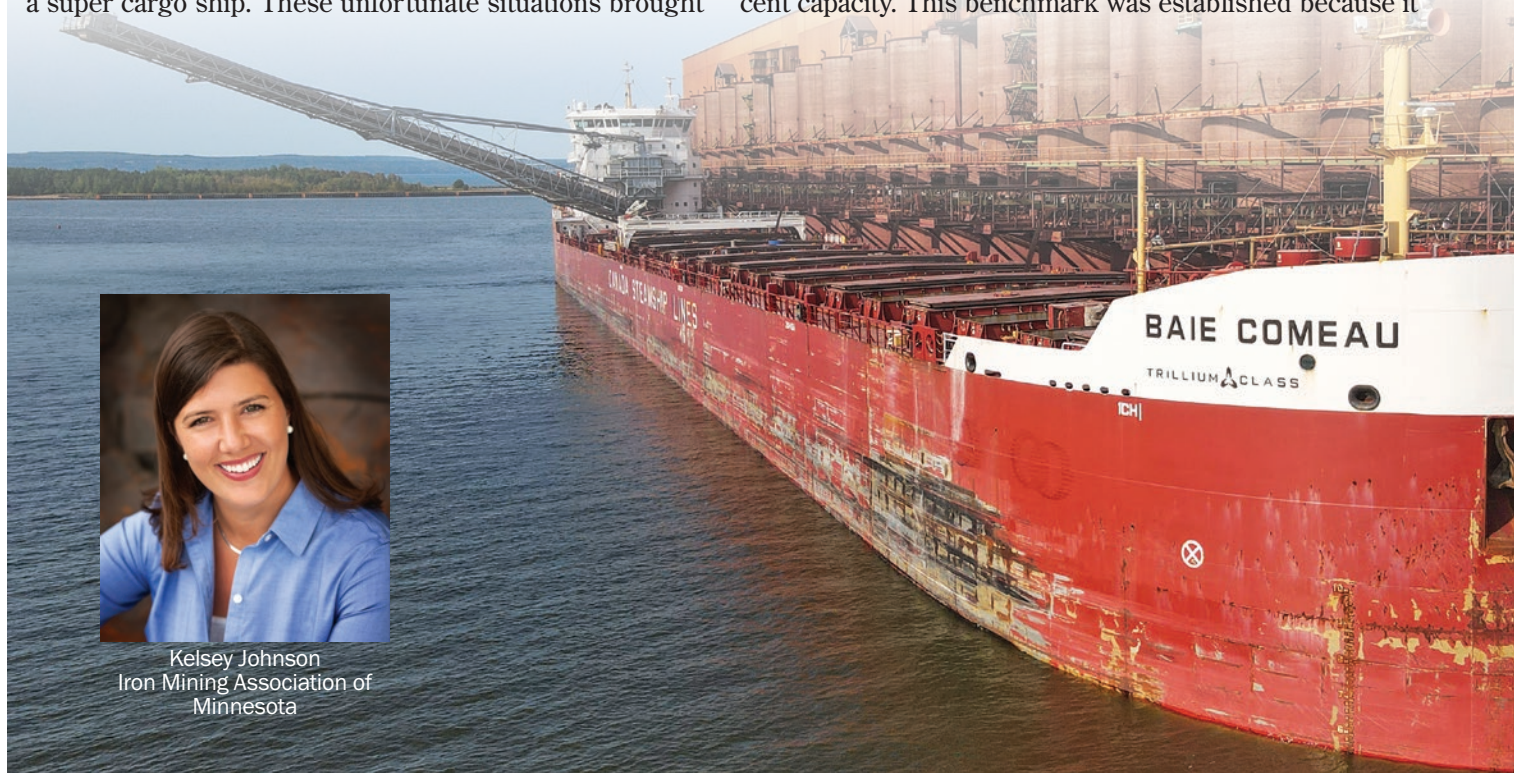
Originally, when the Section 232 was filed with the International Trade Commission, the filing created benchmarks, and for the first time in a long time, the steel industry was able to meet those benchmarks.

Three key benchmarks were created, to be exact.

First, the filing was meant to ensure American steel mills would operate at or above 80 percent capacity. Currently, American steel mills are hovering around 85 percent capacity. This benchmark was established because it



Kelsey Johnson
Iron Mining Association of
Minnesota



was believed (and evidence supported the claim) that facilities needed to reach that capacity in order to be financially sound.

Second, the filing was meant to reduce steel import penetration. The Trump administration sought to decrease the amount of steel imports reaching America's shores by 20 percent, thereby increasing demand for domestic steel.

Finally, the filing was meant to increase American operational efficiency in the near term and improve the financial viability of American steelmaking in the long term. As evidenced by multiple announcements this year, many U.S. steelmaking facilities are reinvesting capital into their facilities to ensure that the industry has a bright future.

The entire scope of the Section 232 filing and its recent modifications are yet another example of the delicate balance required to keep global trade moving on an even playing field.

Here's hoping that 2022 will include more global trade success stories, fewer faux pas, and a brightening future for our economy, our communities and our families.

The Canada Steamship Lines vessel *Baie Comeau* loads iron ore for export at the BNSF terminal in Superior, Wisconsin, on Oct. 20, 2021. The flow of iron ore and finished steel was one of many intriguing global trade storylines with local implications in 2021.



Adam Bjornberg

PORT PASSINGS

Anthony "Tony" James Willoughby, 75, of Superior, Wisconsin, died Sept. 5, 2021. Tony served in the U.S. Navy, stationed in San Diego, California, from 1965 to 1967. He and his wife, Bette, then moved to Superior where they raised a family on a small farm. Willoughby enjoyed a long career on the working waterfront, becoming a stevedore at the age of 16. Over the years, he worked for Zenith Dredge Company, participating in construction of the Bong Bridge, and later became employed as a tugman for Great Lakes Towing. In the 1980s, he served as president of the International Longshoremen's Association Local 1366. Willoughby retired in 1997 after an accident left him with an extensive injury. He is survived by his wife, four adult children, three siblings, nine grandchildren, five great grandchildren and many other family members and friends.

Captain Tom Mackay, 77, of Duluth, Minnesota, died unexpectedly on Nov. 4, 2021. Look at pictures of Captain Tom, and you'll notice something amazing—his broad, enthusiastic smile in every one. That's no faked grin.

It's that smile we'll miss most of all. Shortly before press time, we learned that Mackay, retired captain for the Vista Fleet, a veteran of the U.S. Navy and one-time teenage Sea Explorer Scout, passed away in his home.

A lifelong resident of Park Point, Mackay lived life with tongue firmly in cheek, ever ready with a pun, a joke or a quip to lighten the moment. He created a "Nessie" monster in the bay outside his and wife Liz's home. He signed his correspondence and labeled his truck "Park Point's Affluent Poor," a nod to the changing community. He and Liz were married for 38 years.

Cap't Tom—his chosen appellation—wasn't just jokester, especially on behalf of his friends. And most everyone he met was his friend.

One of his proudest accomplishments was getting a memorial plaque placed on the Duluth Ship Canal pier for U.S. Coast Guard Boatswain's Mate First Class Edgar Culbertson, who died trying to recover three teenagers during a 1967 storm.

"I got to know Ed sometime in 1966, the year I returned home from my time on a U.S. Navy aircraft carrier in the combat zone of Vietnam," Mackay wrote about Culbertson. Every year on the anniversary—April 30—he placed four flowers beside that plaque, one for Culbertson and one for each of the boys.

Mackay's absence will leave a hole in many lives and at many tables, where he could be found at gatherings of the ROMEOS (Retired Old Men Eating Out), the Harbor Club, the Maritime Club and others. Look for a longer story on Mackay in our next issue.

Dredge material placement rebuilds Minnesota Point

Powerful storms and record-high water levels over the past few years have increased shoreline erosion and threatened property throughout the Great Lakes region. This is especially the case in Duluth's Park Point neighborhood, where the 300-mile fetch of Lake Superior's northeast winds pound the shoreline.

Aiming to help fortify that shoreline, the City of Duluth asked the United States Army Corps of Engineers to embark on a second year of beach nourishment in 2021, using sand dredged from the federal navigation channel to restore the shore along Minnesota Point and the Park Point neighborhood.

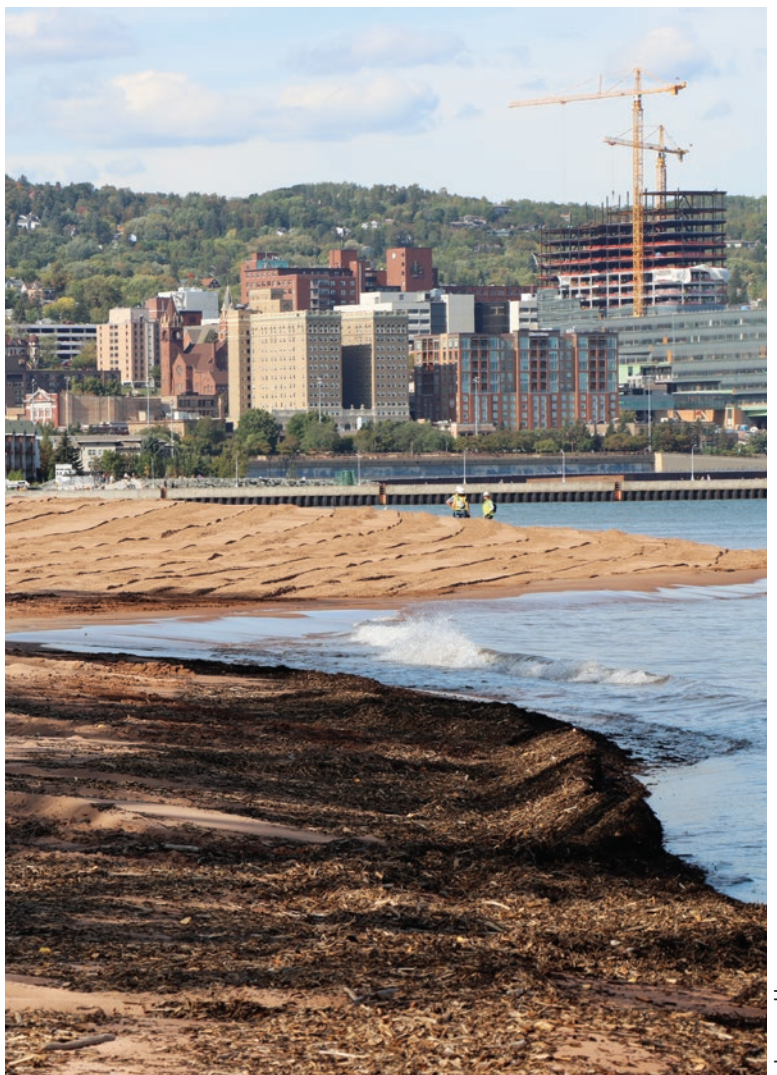
The Corps coordinated placement of more than 100,000 cubic yards of sand on the beach in 2020 and 2021, including some 53,000 cubic yards placed late this summer on the north end of Minnesota Point. This most recent project included an especially high quality of dredge material from a structural standpoint, as well as the use of finer screening equipment to remove man-made debris. The result was creation of an expansive beachscape extending nearly 50 yards from private property lines into Lake Superior.

While not a permanent solution, beach nourishment projects like this will likely play a critical role in protecting Minnesota Point, and the residential properties, from high water and erosion in the future.

On average, the Corps removes 110,000 cubic yards of sand and silt from the Port of Duluth-Superior's 18 miles of federal navigation channel each year to support safe and efficient maritime commerce. For context, that's the equivalent of five football fields buried, end zone to end zone, with material piled to the goalpost crossbars. Putting that material to good use is a high priority for the Duluth Seaway Port Authority, natural resource managers, and the Corps.

A conservative estimate of \$10 per cubic yard puts the value of the beach nourishment project at Park Point over \$1 million.

"Beneficial use of dredge material improves the sustainability of maritime commerce," said Jeff Stollenwerk, director of government and environmental affairs for the Duluth Seaway Port Authority. "Not only that, but in this case, it also helped create a beautiful stretch of beach that restores the natural shoreline and protects private property at no cost to the city. That's a tremendous win-win."



Jayson Hron

In Wisconsin, *Mark W. Barker* floats for the first time

The 639-foot *Mark W. Barker* touched water for the first time Oct. 28, 2021, during a launch ceremony at Fincantieri Bay Shipbuilding in Sturgeon Bay, Wisconsin. The Interlake Steamship Company vessel, believed to be the first United States-flagged Great Lakes bulk carrier constructed since 1983, is scheduled to enter commercial service during the 2022 navigation season.

A new breed of River Class, self-unloading laker, the *Mark W. Barker* is designed to fit the wide array of harbors and docks it will encounter on the Great Lakes. The vessel is expected to be a regular visitor in the Port of Duluth-Superior, most commonly transporting iron ore, salt or limestone.



Interlake Steamship Company

Officials from Interlake Steamship Company and Fincantieri Bay Shipbuilding feted the *Mark W. Barker* at a launch celebration held Oct. 28, 2021, in Sturgeon Bay, Wisconsin. The *Roger Blough*, launched in 1972, is docked nearby. Another member of the Great Lakes Fleet, the 1952-launched *Cason J. Callaway*, floats in the distant background.

2022 Calendar Contest: Sailing into the sunrise

One year after a photo from his son, Gus, graced the Duluth Seaway Port Authority calendar, David Schauer made it a family tradition of sorts. His photo of the *American Century* sailing into a Lake Superior sunrise won top honors in the 2022 calendar contest.

"On this early morning in May, I was at the Duluth canal around 4:50 a.m. to photograph the departing *Mesabi Miner*, which had loaded iron ore at the CN docks and was bound for Indiana Harbor. For that image, I shot from ground level to capture the north pier light," recalled Schauer. "Following behind the *Mesabi Miner* was the *American Century* loaded with coal from Midwest Energy in Superior, which was bound for St. Clair, Michigan. The timing was going to be just about perfect with the rising sun, so I elected to launch my drone in order to see both the sun and *Mesabi Miner* on the horizon with the Aerial Lift Bridge as a backdrop. Sometimes it all comes together to produce a nice image."

The 2022 Port Authority calendar will be available by Nov. 22, 2021. This will be the 45th edition of the calendar, which showcases the outstanding visual artists who exhibit our world port in a variety of mediums.

2022

DEPARTING THROUGH CALM WATERS, THE AMERICAN CENTURY SAILS INTO A LAKE SUPERIOR SUNRISE ON THE 45TH ANNIVERSARY OF HER MAIDEN VOYAGE.

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Duluth Seaway Port Authority

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Great Lakes Fleet salutes recent and less recent retirees

As is the case throughout much of the maritime industry, retirements have left Duluth-based Great Lakes Fleet with big shoes to fill. Ken Gerasimos, general manager of Great Lakes Fleet, provided the following collection of retiree notes and a hearty salute to his longtime colleagues.

John Thibodeau retired from Great Lakes Fleet as general manager in December 2018. His background included experience as chief engineer on several vessels, including the *Stewart J. Cort*, which was the Great Lakes' first thousand-footer. He moved to Great Lakes Fleet in the 1990s, working as a port engineer before becoming fleet engineer, and eventually, general manager. He continues his involvement with the maritime community today as a board member with the Duluth-Superior Maritime Club.

Greg Drickhamer started sailing in 1969 aboard the *Cason J. Callaway* and approximately four other ships in the fleet. He also served as part of the winter work team with the Great Lakes Fleet Port Services Department. By the mid-1970s, he was part of the fleet's engineering department. He eventually moved into the accounting department, where he stayed until 1983, when he was promoted to coordinator expeditor for the engineering department. In 1996, he was fully engaged with the engineering department, which at that time, included a hull division where he stayed until 2002 when he became the leader in administration and purchasing. From 2004 through November 2020, Drickhamer managed the purchasing department.

Willie Keyes started sailing at the end of 1973, when he boarded the classic steamship *Reserve* with Columbia Steamship Company. He continued on the *Reserve* in 1974 and then worked his way up the hawsepipe and acquired his third assistant's steam license.

Keyes sailed on many Columbia Steamship vessels as assistant engineer, but his first job as chief came

aboard the *Courtney Burton*, later renamed the *American Fortitude*. He stayed with Columbia for the next 16 years and eventually sailed as chief engineer aboard the *Columbia Star*, retiring in 2002, after 24 years with what was then known as Oglebay Norton. One month later, he joined Great Lakes Fleet as a port engineer. He is now retiring from Great Lakes Fleet as the fleet engineer, and after 48 years in the Great Lakes shipping industry, he's earned a well-deserved rest.

Jerry Walls joined Great Lakes Fleet in October 1987 after a stint sailing for Interlake Steamship Company. He graduated from the Great Lakes Maritime Academy in Traverse City, Michigan, in 1980. He held various positions within the company, including dispatcher in the traffic department, manager of vessel operations and personnel manager. Walls retired in August 2020, after 33 years of working for the Great Lakes Fleet.

Both Gerasimos and Kate Ferguson, who worked for Great Lakes Fleet prior to joining the Duluth Seaway Port Authority in 2015, also saluted retiree **Bob Young**, who worked in the traffic department. A scheduler extraordinaire, Young was a grand master in optimizing timetables for ships and docks throughout the Great Lakes, successfully dispatching the fleet for more than two decades.

"These men had long and storied careers in the Great Lakes shipping industry, and I congratulate them all on their much-deserved retirement," said Ferguson, now the Port Authority's director of trade and business development. "Their guidance, support and friendship helped me find success in my career. I wouldn't be where I am today without them. I'm also armed with a variety of fruity sailor phrases because of them welcoming me into the Great Lakes Fleet family so many years ago. They all deserve the highest praise and recognition for their contributions to the Great Lakes maritime industry."

Gerasimos echoed those sentiments, adding, "It was an honor to get to know all of these folks and work alongside them. These individuals were responsible for many of the successes this fleet experienced while they were here, and it's certainly not the same without them. They all left their mark on the industry."



Cason J. Callaway of the Great Lakes Fleet

Korey Garceau

New colors on display at Clure Terminal



Port observers noticed a transformation of sorts this fall at Duluth's Clure Public Marine Terminal, as the 1959-built transit shed and warehouse complex received a bold new coat of paint. The blue and dark orange of Duluth Cargo Connect now covers it, with matching signage soon to complete the update.

These new colors comprise a specialized Sherwin-Williams paint system that will help protect a very heavy-gauge steel siding original to the buildings. They were last painted when the Steve Miller Band topped the charts with "Abracadabra" and the Milwaukee Brewers won the American League pennant (1982), which is to say, it's been a while.

Nelson Industrial Coatings is leading the project, which will continue next summer on the terminal's other buildings.



Jayson Hron

Duluth Seaway Port Authority climbs in Green Marine environmental rating

The Duluth Seaway Port Authority and its terminal operations on Rice's Point earned high marks in the recently released Green Marine 2020 environmental performance report, improving from a 3.8 rating in 2019 to a 4.0 score on Green Marine's five-point scale. The overall average for reporting participants was 2.9.

The annual report rates port authority participants in seven categories: air emissions, community impacts, dry bulk handling and storage, environmental leadership, spill prevention, underwater noise, and waste management. A record 49 North American port authorities participated in the 2020 evaluation process, with the Duluth Seaway Port Authority ranking No. 4 in the United States and No. 1 among U.S. Great Lakes ports.

"We're mindful of minimizing environmental impacts and the Green Marine program helps guide those efforts," said Jeff Stollenwerk, Duluth Seaway Port Authority di-

rector of government and environmental affairs. "It provides a tangible scoreboard for environmental stewardship, with benchmarks that become increasingly stringent from year to year. That approach helps inspire participants to exceed regulatory requirements."

The voluntary Green Marine certification program began in 2007 and now includes nearly 170 participating ship owners, port authorities, seaway corporations, terminal operators and shipyard managers. Program participants must adopt practices and technologies that continually reduce their environmental footprint on the land, air and sea. The Duluth Seaway Port Authority has participated since the program's inception.



Updated study reveals benefits from industrial sector

Building on a 2018 study by the Initiative for a Competitive Inner City (ICIC), the Duluth Seaway Port Authority recently released updated information compiled by Northspan highlighting the economic value and social significance of Duluth's industrial sector.

The 2019 data, representing the most recent available, not only support the previous findings (which were based on 2016 data), but also indicate an increasing contribution from the industrial sector to Duluth's economic vitality and community infrastructure.

Among the key findings:

Duluth's industrial sector provided more than 9,800 direct jobs within the city and supported nearly 8,200 additional industrial and non-industrial jobs in St. Louis County.

In 2019, Duluth's industrial sector generated \$5.1 billion in business revenues and contributed \$439 million in state and local taxes, including \$140 million supporting the Duluth community.

In addition to providing competitive benefits and equitable opportunities for advancement, Duluth's industrial jobs pay higher average annual wages (\$68,913) than non-industrial jobs (\$48,401) and the city's overall average (\$51,012). Since the 2018 ICIC study, growth in average industrial job income has outpaced growth in aggregate citywide income by more than 4 percent.

On a per-job basis, Duluth's industrial sector generates three times more tax revenue and supports

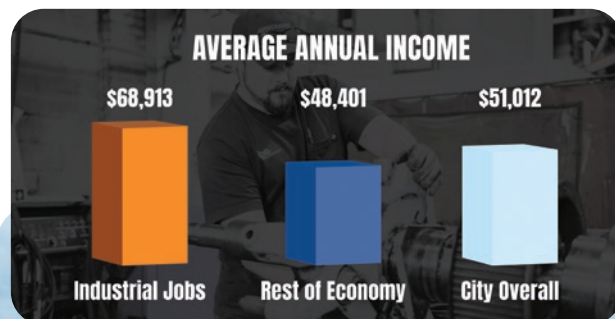
twice as many additional jobs as compared to the rest of Duluth's economy.

Industrial jobs are accessible to people from a wide range of educational backgrounds (high school graduates, tradespeople, those with specialized technical training, college graduates, etc.), providing an opportunity for equitable growth.

"The original ICIC report quantified the strong foundation industry provides for Duluth, and these updated figures affirm it," said Deb DeLuca, executive director of the Duluth Seaway Port Authority. "Industry isn't past-tense in this community. It's a key contributor to Duluth's economic vitality now and into the future. With inclusive onboarding programs to serve as an on-ramp, industrial jobs offer a wide avenue to expand equitable, family-sustaining employment opportunities in Duluth."

As noted in the original ICIC study, realizing the full potential of responsible industrial opportunity in Duluth requires leadership from the public and private sectors, along with coordinated economic development strategies that recognize and support the importance of industry in tandem with other sectors of Duluth's economy.

"Growing the industrial sector in this community, and with it, the number of accessible jobs with higher wages, will create a stronger, more sustainable future for Duluth," said DeLuca. "It's an opportunity to work together to provide vision, commitment, land and policy-making that puts Duluth in a competitive position compared to its peer cities."



IN FOCUS: Korey Garceau

Our In Focus series profiles the photographers whose images bring the port's working waterfront to life.

How did you first get into photography, specifically the shipping scene?

When I was younger, I would see freighters while ice fishing with my dad. I decided early on that I wanted to photographically document which ships I saw, and it grew from there.

Is photography your primary profession?

It is not. I am a full-time student at the University of Wisconsin-Superior, studying transportation and logistics management and Spanish.

What draws you to Great Lakes shipping and the working waterfront for images?

I am fascinated not only by the ships but also the logistics and strategic planning that makes everything happen. There is so much going on behind the scenes. When I am photographing an arriving vessel, I like to think about how and why this boat is coming into the port. Both crews on the vessels and on land are so important to this industry.

Do you have a personal connection to the lake from growing up in/visiting the region?

I was born and raised on the Lake Michigan shoreline in Manitowoc, Wisconsin. Now living in Superior for college,

I am thankful to still be able to enjoy the Great Lakes environment and the "greatest" lake of them all.

How would you describe your approach to photography?

Being a hobbyist photographer, I focus on having fun while I am shooting. It is great to get that stellar shot, but if you are having fun while doing it and enjoying the scenes around you, you can't go wrong. An additional bonus to the hobby is making many good friends along the way.

Are most of your shots planned or spontaneous?

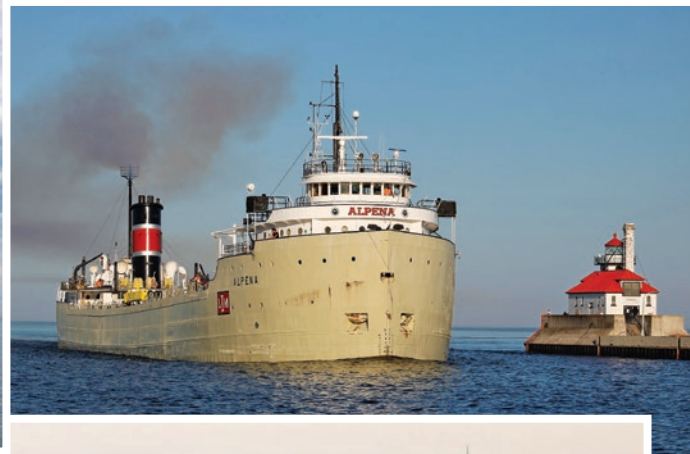
Most of the time, I try to plan which shots I would like to take. Things don't always go as planned, as ships are moving targets, so I am always willing to adapt to the scene as I shoot.

How do you know when you get a great shot?

Exceptional lighting or a cool natural occurrence are usually good signs that I will be happy with a shot that I took that day, but every once in a while, I find a gem in my series that I completely disregarded as I was shooting.



Korey Garceau



Photos by Korey Garceau



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