



Duluth Seaway Port Authority

Fall 2011

NORTH STAR PORT



Making the case for maritime

The value of Great Lakes-Seaway shipping in dollars and sense

Two years ago, a report by the U.S. Army Corps of Engineers determined that marine shipping — moving cargo via the Great Lakes St. Lawrence Seaway (GLSLS) — saves companies some \$3.6 billion per year in transportation costs compared to the next least-costly, land-based mode.



The Harbor Line
Adolph Ojard
Port Director



Yet for maritime leaders and policymakers, bigger questions were left without answers.

What truly is the economic impact of this binational trade corridor on local, state and provincial economies? And, perhaps even more importantly, how many jobs are inextricably tied to this maritime industry?

On October 18, a coalition of GLSLS maritime industry leaders rolled out to the public results of a year-long study that answered these and myriad other questions about the economic impacts of our navigation system. This, the first ever, system-wide binational study, found that maritime commerce along this waterway supported 227,000 jobs; contributed \$14.1 billion in annual personal income, \$33.5 billion in business revenue; and added \$4.6 billion to federal, state/provincial and local tax revenues.

'Billions in benefits' **Article, graphics / Page 6**

The newly released study slices data in several different ways, reporting impacts by cargo type, by geographic area, by industry sector and more. The timeliness of this study cannot be overstated. As we debate national transportation policies, having an accurate, comprehensive set of statistics now provides a solid foundation for key decision-making at all levels of government. It enables the Great Lakes-Seaway maritime industry to speak with one, resounding voice and back up our policymaking requests in Washington and Ottawa with defensible facts and figures.

The study uses 2010 as its base year. Since this was an economic recovery year, 2010 did not begin to approach historical five-year tonnage averages for our waterway. The study therefore represents a conservative snapshot of the maritime industry's economic impact. It should be noted that the binational steering committee overseeing this project purposely did not cherry-pick a good year for the analysis. As a consequence, the numbers do reflect a weakened economy.

Enormous impacts

This study unearthed statistics that reveal that this waterway's economic impact is far greater than any of us ever imagined — surpassing expectations of its most ardent supporters. Its dynamism, its vitality,

its economic development potential are all evident in these new figures.

Yet, why should we be surprised? For over 100 years, the Great Lakes waterway has been an integral part of our regional transportation network. Producers and end users incorporated water into their transportation system by necessity and are now earning a dividend (\$3.6 billion in savings) for their vision and commitment.

Since many of the funders for this project were directly tied to the maritime industry, the overarching goal was to ensure that the data gathered and results reported would be perceived as being totally objective and free from industry bias.

As such, the study was peer reviewed by three economics professionals from three different institutions in the U.S. and Canada, and the entire process was managed by the U.S. Department of Transportation and Transport Canada.

Foundation for policymaking

This study will go a long way toward identifying the public return on investment and providing a framework for the development of maritime public policy at all levels of government as it relates to the GLSLS transportation corridor. Furthermore, if we expect the system to remain viable — and if we expect ships and ports to recapitalize and modernize their assets — we must demonstrate that policies and public support are in place.

(Continues on Page 5)

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Port director named to national advisory panel

Duluth Seaway Port Authority Executive Director Adolph Ojard has been appointed to the new Marine Transportation System National Advisory Council by Ray LaHood, secretary of the U.S. Department of Transportation.

In related news, Ojard was installed as chair-elect of the American Association of Port Authorities' (AAPA) U.S. delegation following two years as Great Lakes representative on the AAPA Executive Committee and Legislative Policy Council.



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Billions in benefits

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MERC's new market

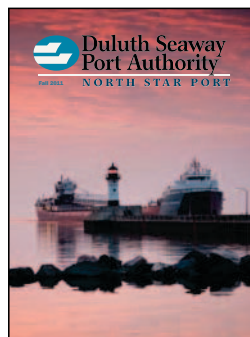
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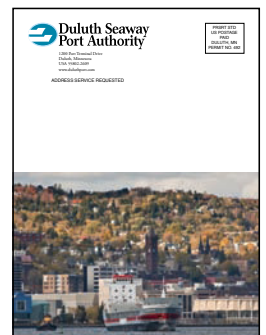
Robert Welton

On the front:

The *Arthur M. Anderson* is awash in the glow of a Superior sunrise as she makes her way through the Duluth entry.

On the back:

Duluth's hillside provides a colorful backdrop for the *Medemborg* as she makes her way through the Duluth harbor.



Robert Welton

Wind energy shipments head to Bison 1 in North Dakota

The Antigua/Barbuda-flag *BBC Jade* arrived in the Port of Duluth on Sept. 8 to discharge nearly 4,000 freight tons of wind turbine components destined for Minnesota Power's Bison 1 Wind Energy Center in North Dakota. On board were 15 direct drive Siemens nacelles, 15 power units and nearly 30 containers for Phase B of the 82-megawatt Bison 1 project under construction near New Salem, N.D. Hubs for those units were scheduled to arrive on *Adriaticborg* in early November.

The components were shipped from the Port of Aarhus, Denmark, and stored at the Duluth Seaway Port Authority's Clure Public Marine Terminal until needed at the project site. Specialized trucks were dispatched throughout the fall to transport the equipment to North Dakota. Initial shipments of Siemens wind components for this same proj-

ect moved through the Duluth port in August 2010.

Blades for the Bison 1 wind project were fabricated in a Siemens Energy plant in Fort Madison, Iowa, while towers for the turbines were built in West Fargo, N.D.

"As one of the world's largest wind turbine providers, efficient transportation is critical to our operations," said Sally Choep, transportation & logistics manager for Siemens Energy's wind power business. "The Port of Duluth offers us convenience and easy clearance for our shipments, and Lake Superior Warehousing provides excellent handling of our cargo. As the supplier of the wind turbines, we are delighted to see the continuing expansion at Minnesota Power's Bison project, providing clean energy to their customers throughout the region."

Earlier this year, Minnesota

Power announced the expansion of its wind development efforts with two additional projects totaling 210 megawatts and 70 turbines. Bison 2 and 3 are scheduled to go online in 2012. This investment of more than \$300 million will help move the company closer to meeting Minnesota's 25 percent Renewable Energy Standard by 2025. The company already owns a 465-mile high voltage transmission line that is being used to move renewable energy eastward to its Arrowhead Substation near Duluth.

"Developing cost effective renewable energy supports the industries we serve to be competitive in the global marketplace," said Minnesota Power Chief Operating Officer Brad Oachs. "The Port of Duluth provides access to the world, which expands our business options, benefiting all of us locally and regionally."



Robert Welton

The Port of Duluth is a vital multimodal link for wind energy cargo.



Wind Energy Hub

DULUTH DELIVERS *like the wind*

DSPA

The Port of Duluth is definitely in the wind energy business for the long haul. Several land-based carriers have specialized equipment to deliver dimensional components like these to their final destinations. On Sept. 8, the last of a shipment of blades that had been in long-term storage at the Port were finally transported to a wind farm in Illinois.

“Duluth has an exceptional inter-modal facility,” says Jonathan Lamb, vice president and general manager at Lake Superior Warehousing Co.,

Inc. “We sit at the intersection of three major highway corridors and are served by four Class I railroads. With our strategic location and

experienced workforce, the Port of Duluth remains a vital link in the global wind energy supply chain.”

Making the case for maritime

(Continued from Page 2)

Maintaining the national infrastructure that supports international and interstate commerce is a core responsibility of the federal government as identified by our nation’s founders. Currently, however, the Corps of Engineers’ dredging budget for the Great Lakes is grossly inadequate. Next year just 11 of 34 commercial ports are budgeted for dredging; two commercial ports may have to close. These closings will begin a process, if left unchecked, of restricting trade and maritime activity that will reduce jobs at every Great Lakes port. With over 40 million tons of commerce, the Twin Ports of Duluth-Superior will begin to see the negative effects of these budget shortfalls in the next few years.

So it is important that we define the value of our maritime transportation system — a process that this comprehensive study has begun. It is just as important that the industry rally together to deal with the issues facing maritime. While ports and fleets and companies within the maritime industry compete aggressively for business, we also work in harmony when prudent as demonstrated by this study.

The monies required to support this work were raised by a broad array of Great Lakes-Seaway maritime interests coming together to speak with one voice. More needs to be done. Just as the ink dries on this report, the next step will begin to study the impact of a modal shift — to identify and quantify the damaging social and environmental conse-



Lynn Wegner

Polsteam’s Resko — in Port while on her maiden voyage from China — takes on grain at CHS. This bit of commerce wouldn’t have been possible without the Great Lakes St. Lawrence Seaway.

quences of shifting freight from our marine highway to truck and rail. The next study will, in turn, provide a framework for future discussion and policy debates.

This column will also appear in the fall 2011 issue of *Seaway Compass*.

Billions in benefits from Great Lakes-Seaway shipping

The Great Lakes St. Lawrence Seaway has long been the backbone of this region's economy. For the first time, a comprehensive study released in October quantifies just how enormous an impact maritime commerce has on jobs, industrial growth and economic vitality along this binational waterway.

"This report bears out what we've long known — that the Great Lakes St. Lawrence Seaway is crucial to the U.S. economy," said U.S. Transportation Secretary Ray LaHood. "Not only is marine transportation the single most fuel-efficient and cost-effective way to haul goods from one place to another, but it also supports hundreds of thousands of essential jobs and generates billions of dollars in economic activity."

Analysts calculated the effects of cargo movements in 2010 at 32 U.S. and Canadian ports, including the Port of Duluth-Superior. The study reveals that activities related to maritime transport along the Great Lakes-Seaway system create more than 227,000 jobs and generate \$14.1 billion in salaries and wages in the U.S. and Canada.

"The jobs sustained by the maritime industry include not only those located directly on the waterfront — longshoremen, terminal employees, vessel operators, pilots and truckers — but also steelworkers, miners, grain farmers and construction workers, many of whose jobs would disappear but for a vibrant, healthy maritime industry," said Collister Johnson Jr., administrator of the U.S. Saint Lawrence Seaway Development Corporation.

Cargo shipments along this waterway generate \$33.5 billion in economic activity within the adjoining eight U.S. states and two Canadian provinces. And the revenue generated by the marine sector gives rise to \$4.6 billion in income and corporate tax payments in the two countries.

North American farmers, steel producers, construction firms, food manufacturers and power generators depend on the nearly 164 million metric tons (181 million short tons) of essential raw materials and finished products that are moved annually on the Great Lakes-Seaway system. Additionally, marine shipping saves companies approximately \$3.6 billion per year in transportation costs compared to the next least costly land-based alternative mode.



A maximum Seaway-size laker can carry 25,000 metric tons per voyage, the equivalent of 225 rail cars or 870 semi-trailer trucks.

"We have a lot of faith in the numbers presented in this study," said Duluth Seaway Port Authority Executive Director Adolph Ojard. "The study measured economic impacts for both the U.S. and Canada at the same time, using the same methodology. Having it peer-reviewed by economists in both countries added an even greater measure of credibility. We always knew that the impact

Great Lakes-Seaway Navigation System Economic Impacts — 2010 (USD)

	In the United States	In Canada	Combined Economic Impact
Employment (Direct, Induced and Indirect)	129,000 jobs	98,000 jobs	227,000 jobs
Economic Contribution (Business Revenue)	\$18.1 billion	\$15.4 billion	\$33.5 billion
Personal Income (Wages & Salaries)	\$9.7 billion	\$4.4 billion	\$14.1 billion
Federal Taxes	\$1.7 billion	\$1.3 billion	\$3.0 billion
State/Provincial and Local Taxes	\$1.0 billion	\$0.6 billion	\$1.6 billion
Total Taxes Paid	\$2.7 billion	\$1.9 billion	\$4.6 billion



Robert Welton

The five Great Lakes and the St. Lawrence Seaway combine to form an efficient, low-cost marine super highway that supports North America's industrial and agricultural heartland and serves a consumer market of more than 100 million people. This amazing international waterway makes it possible for ships like the *Kwintebank*, above, to include Duluth-Superior among its worldwide ports of call.

of the maritime industry along this trade corridor was huge, but it's great to finally have those figures on paper."

This navigation system is a major transportation byway — especially for raw materials like iron ore, coal, limestone, cement, salt and grain — moving in and out of the heartland of North America. "With this study, policymakers can finally see this as one system," added Ojard. "The ports, the channels, the products we handle and the industries we serve are all part of a single, integrated waterway. So what affects a

port downstream — closing because of drastic cuts in federal dredging budgets, for example — directly impacts our throughput at terminals here in Duluth-Superior."

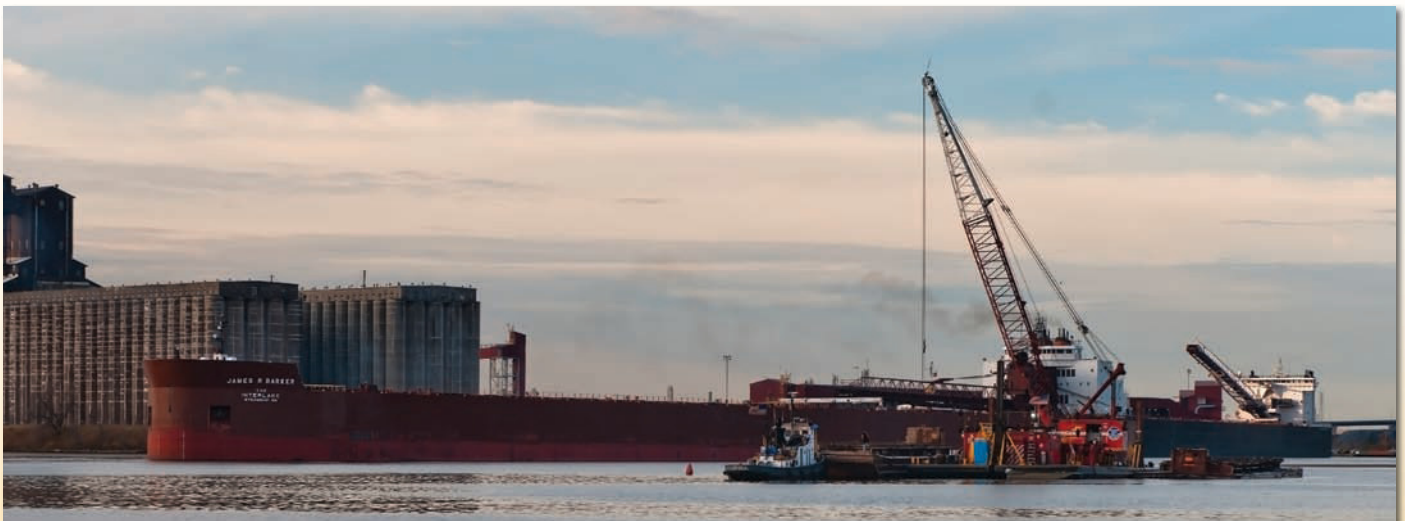
QUICK FACTS:
Great Lakes-Seaway marine shipping in U.S. & Canada:

- Creates 227,000 jobs
- Produces \$33.5 billion in economic contribution annually
- Generates \$14.1 billion in employment wages annually
- Contributes \$4.6 billion in federal, state/provincial and local taxes every year
- Moves 164 million metric tons of essential raw materials and finished products annually
- Saves cargo shippers \$3.6 billion in transportation costs every year

The study, entitled "The Economic Impacts of the Great Lakes St. Lawrence Seaway System 2010," was commissioned by members of the marine shipping industry in partnership with U.S. and Canadian government agencies.

Martin Associates of Lancaster, Pa., a global leader in transportation economic analysis and strategic planning, conducted the study.

Find links to the full study at www.marinedelivers.com or under the "News Center-Publications" tab at www.duluthport.com.



Robert Welton

The federal dredging budget impacts terminals in Duluth-Superior — and all other Great Lakes ports.

There's a NERR in our neighborhood

Scientific activity is under way at the Lake Superior National Estuarine Research Reserve (LSNERR) at the confluence of the St. Louis River and Lake Superior.

The LSNERR is one of 28 designated areas across the nation that serve as “living laboratories” for long-term research, water-quality monitoring, education and stewardship under the National Estuarine Reserve System. That system is a program of the National Oceanic and Atmospheric Administration (NOAA) and is locally led and partially financed by the University of Wisconsin-Superior (UWS) and UW Extension.

The LSNERR consists of nearly 16,700 acres of public lands and waters — marshes, uplands, rivers and Lake Superior shoreline that are part of the St. Louis River estuary. The land is owned by the Wisconsin Department of Natural Resources, city of Superior, Douglas County and UWS.

Initially, plans were to house the program on the UWS campus, but the opportunity came up to acquire two buildings on Barkers Island that formerly housed a restaurant and gift shop. A grant request was submitted to NOAA to secure \$2 million to buy and renovate both buildings. Funding was secured in September. Renovations are now under way to create laboratory and education space plus administrative offices and a science and interpretive center within the LSNERR footprint.

The organization will use green technology as much as possible to make the site a demonstration project. Additionally, NOAA is providing specialized instruments for water quality monitoring along a stretch of the lower St. Louis River and real-time posting of that data on the web.



LSNERR assisted Dr. Richard Kiesling, U.S. Geological Survey, with his periphytometer study (i.e. real-time, onsite monitoring of algae growth), while he helped LSNERR with its water quality studies.

Courtesy LSNERR

Garono; Sue O'Halloran, coastal training program coordinator; Deanna Erickson, education coordinator; Dr. Shon Schooler, research coordinator; and Becky Sapper, monitoring coordinator, who operates out of the Northern Great Lakes Visitor Center in Ashland. With additional

funding on the horizon, Garono hopes to have as many as 10 to 15 staff members onsite by the summer of 2012, including graduate students and interns.

According to Garono, the LSNERR's role is to enhance collaborative partnerships with agencies already studying the St. Louis River, its watershed and the Lake Superior shoreline.

“We want to avoid redundancy; we're here to figure out where there may be gaps in data collection and to facilitate the gathering and sharing of that data with researchers and educators,” said Garono. “We strive to improve the understanding of freshwater estuaries and coastal resources and

to address issues affecting them through integrated research, education, outreach and stewardship.”

The Wisconsin Department of Natural Resources, city of Superior, Douglas County, Wisconsin Coastal Management Program, University of Wisconsin Sea Grant, and the Fond du Lac Band of Lake Superior Chippewa are also partners in LSNERR efforts.

For more information:
www.lsnerr.uwex.edu www.nerrs.noaa.gov

Core staff, collaborative partners

In January, Dr. Ralph Garono moved to Superior from Oregon to become manager of the LSNERR. An aquatic ecology consultant, he was the science/technical coordinator at the Tillamook Bay National Estuary Project and an associate professor at both Oregon State and Western Washington Universities.

The LSNERR staff consists of

What goes up ...

After a 2010 surge, grain declines; iron ore buoys 2011 report

Tonnage through September of this navigation season was holding relatively steady compared to last year in the Port of Duluth-Superior; cargo was off by just 4 percent – buoyed by a 17 percent increase in year-to-date iron ore shipments and a 12 percent rise in “other” dry bulk commodities, including limestone, cement and salt.

However, grain shipments are lagging behind last year, attributable, in large part, to the lifting of a Russian export ban this summer, an abundant supply of wheat on the world market, and cold and wet weather that delayed spring planting in the Upper Midwest. While grain shipments were off 30 percent from last year’s export surge, terminals in Duluth-Superior had moved over 1.1 million short tons by water through September, which is closer to the Port’s five-year average of 1.3 million. Though this Port had seen totals at least double that a decade ago, experts agree that grain activity for the remainder of this shipping season will not improve significantly.

The Port’s latest tonnage statistics also show coal shipments down by some 20 percent compared to last year’s totals to date and five-year averages. As noted in a companion story on Page 10, however, coal exports to Europe are gaining momentum. Yet, fewer deliveries of coal on the Great Lakes-Seaway reflect a de-



Robert Weilton

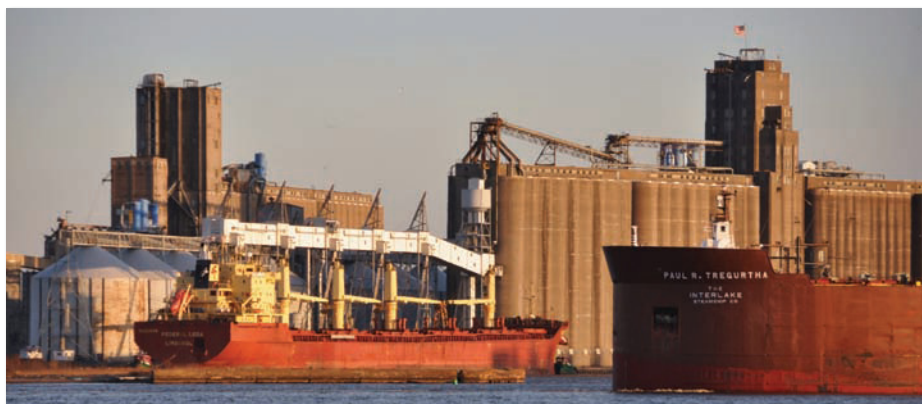
Iron ore and other dry bulk commodities such as stone, cement and salt have kept Great Lakes freighters like the *Herbert C. Jackson* busy.

cline in Canadian coal consumption, a result of a transition to renewables and natural gas in provincial power plants.

Through September, there were 623 vessel visits to the Port of

Duluth-Superior, which included 400 U.S.-flag, 173 Canada-flag and 50 overseas vessels.

The September tonnage report is available at www.duluthport.com. (Click on Port of Duluth-Superior.)



Diane Hilden

The *Paul R. Tregurtha* leaves Port loaded with coal while the *Federal Leda* takes on grain at CHS.



Robert Weilton

The *American Courage* moves through waters stirred up by recent storms in the Twin Ports.



MERC opens a new market

The oceangoing *Spruceglen* takes on coal at the Midwest Energy Terminal, at a berth more commonly occupied by lakers that move coal to domestic ports.

The product: low-sulfur coal from the Powder River Basin in Montana and Wyoming.

The American players: The Superior Midwest Energy Terminal, which is owned by Midwest Energy Resources Company (MERC), a wholly owned subsidiary of Detroit Edison Company and BNSF Railway.

The new Canadian players: Quebec Stevedoring (QSL) and Canada Steamship Lines (CSL).

The story line: After three-plus decades of serving customers on the Great Lakes, MERC is expanding its customer base not just beyond the Great Lakes — but clear across the Atlantic Ocean.

■ ■ ■

Partnering with Quebec Stevedoring's Beauport Sector dock in Quebec City, MERC is developing a seamless supply mechanism for customers of American coal in Northern Europe.

Together, MERC and its allied railroad in America, a Canadian marine carrier and a transshipment terminal in Canada now offer

a competitive package rate for all transport and dock services from the mines in the Powder River Basin through the Port of Duluth-Superior to transshipment operations in Quebec to final destinations in Europe.

Why? Because energy consumers in Europe want American coal.

"Midwest Energy Resources has been able to capitalize on the increased demand for U.S. low-sulfur coal in international markets," said Fred Shusterich, MERC president.

"The world wants U.S. coal, but there are capacity issues at U.S. coastal ports. Our new mechanism puts us one-third the ocean distance of the Gulf ports to Europe, so we are well positioned to be a strong player in what for us is a new market — the export market."

MERC's annual transshipment capacity has grown to 25.5 mil-

lion metric tons in recent years due to expansion and innovation. The company's prime customer is Detroit Edison and its Michigan power plants.

MERC also has developed a market in Canada. Those customers, however, have begun the transition from coal to renewables and natural gas. That has left MERC with excess capacity.

With that incentive, MERC sought new markets. "Obviously, no domestic customer for replacement business was going to materialize," Shusterich said.

So MERC went looking for customers beyond its borders. And there the customers were — an ocean away. "The stars and the planets lined up," Shusterich said, as essential rail, vessel and dock providers saw the new opportunity and quickly seized upon it.

Already MERC is seeing growth

Robert Welton



Midwest Energy's coal-handling system is a model of efficiency. Here a 123-car unit train arrives with coal from the Powder River Basin. Two trains' full of coal will fill a Canadian laker for shipment to Quebec.

in its export operations. Shusterich had expected to ship one export cargo from Quebec to Europe this year; instead three MERC cargoes will leave North America — one for Rotterdam and two for Spain totaling approximately 350,000 metric tons. MERC already has orders on the books for 1.5 million metric tons for each of the next three years (2012-2014). Shusterich's goal is to expand that to 4 million tons per year by 2014.

“To slingshot to 1.5 million metric tons in coal exports by the end of next year is testimony to the ingenuity of our staff and the flexibility of our terminal, the mechanism and the Seaway,” Shusterich said. “The Seaway truly is a global gateway.”

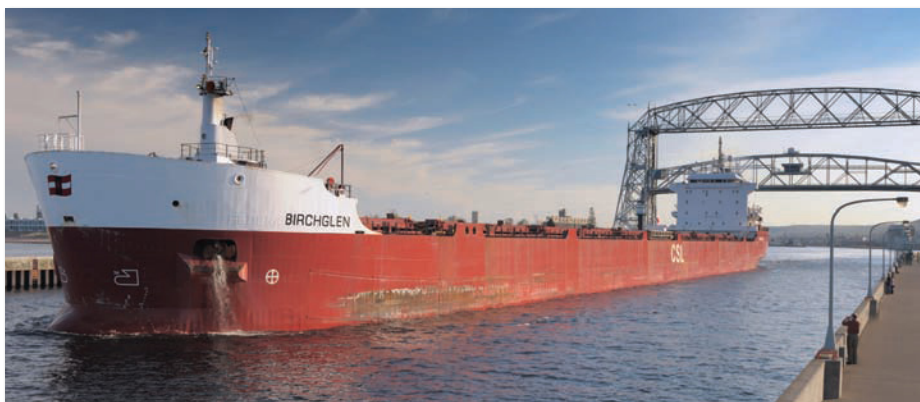
Shusterich won't hear of letting

MERC relax under the lighter load of reduced domestic demand for coal. “We're volume-driven,” he said. “We've always been. And it's our job to contribute to the Detroit Edison enterprise. Our contribution doesn't go to the Detroit Edison bottom line, but to its rate payers. We feel an obligation to them.”

Beyond that, he said, “We've always been a leader in our energy field. I'm not comfortable with being anything less than that. We handle a valuable product, one that is in demand all over the world,” Shusterich said. “Our rates are very competitive. We're working with innovative partner companies. Midwest Energy is going to continue to be an energy leader.”

— by Larry Fortner

Robert Welton



The *Birchglen* leaves Port with a cargo of coal, bound for the Quebec Stevedoring Beaumont Sector dock in Quebec City.

The mechanism

Here's how low-sulfur coal from North America finds its way to Northern Europe, with Midwest Energy Resources Co. serving as the invaluable driving link:

- The coal is mined in the Powder River Basin in Montana and Wyoming.
- It is transported by BNSF in MERC-owned 123-car unit trains to the Superior Midwest Energy Terminal and stored (probably not for long) on the ground.
- The coal, often after being blended, is loaded into CSL bulk lakers at MERC's 1,200-foot dock. (It takes just one MERC operator to run the loading controls.) It takes two trains' worth of coal to make a load in one of the CSL ships.
- The ship makes the six-day trip to Quebec Stevedoring's Beauport Sector dock in Quebec City. There, the coal is unloaded and stockpiled.
- Once four to five Canadian vessels have unloaded at the deep Beauport dock in Quebec City, enough coal is in supply to load a Panamax or Capesize ocean vessel.

With that, American coal is on its way to Europe. There's more where that came from. And MERC knows how to get it there.

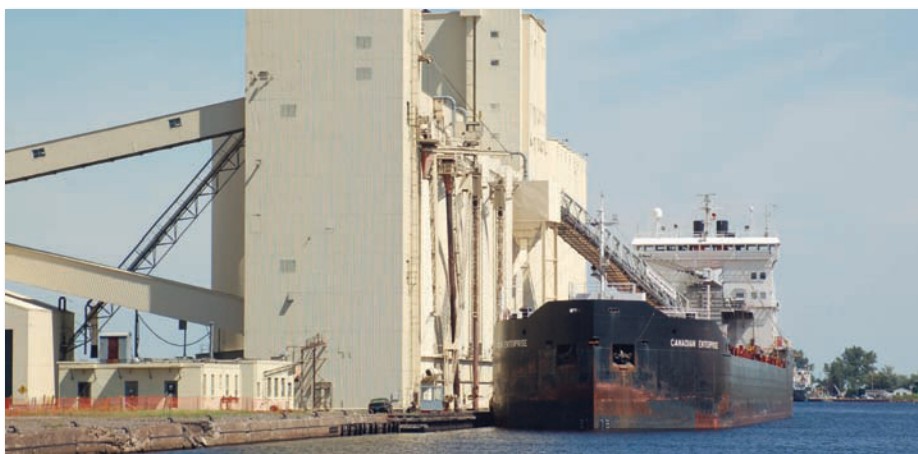
Travis Chadwick



Ship loads coal at MERC on her maiden voyage

The *Algoma Mariner*, Algoma Central Corporation's brand new 740-foot Seaway-max coastal class self-unloader, visited the Twin Ports on Aug. 21 to load coal at Midwest Energy Resources Co. Constructed at Chengxi Shipyard in China, the new vessel has a number of state-of-the-art environmental and technical features, including 25 percent greater fuel efficiency. Delivered to Algoma at the end of May, this was her maiden voyage on the Great Lakes St. Lawrence Seaway. Immediately after loading in Superior, she returned to Port Colborne, Ontario, to be officially christened on Aug. 25. She then departed for Nova Scotia, to deliver that first shipment of coal.

DSPA



Canadian Enterprise delivers inbound grain

In August, the *Canadian Enterprise* put an interesting twist on the usual pattern of grain movement in the Twin Ports. She delivered Duluth's first cargo of inbound grain in a decade.

The ship's destination was Riverland Ag-Duluth Storage, owned by Ceres Global of Toronto. In the past, oats, rye and barley have arrived via ship from Canada for domestic distribution.

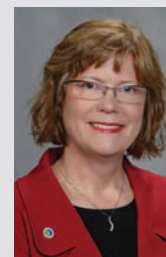
New faces at Mn/DOT

Because the Port Authority works so closely with the Minnesota Department of Transportation to secure permits and move overweight/dimensional cargo efficiently and safely across state roadways, we wanted to introduce readers to two of the newest members on staff at Mn/DOT District 1.



Jabr

Amr Jabr, now serving as district engineer for this eight-county region, relocated to the Duluth office in June for what's expected to be a nine-month interim appointment following Michael Robinson's retirement. Jabr has served in a variety of positions with Mn/DOT during the past 22 years, including assistant state geometrics engineer, state design standards engineer and, most recently, metro district operations and maintenance director. He will return to the Twin Cities once a permanent replacement is named in early 2012.



Petrowske

Beth Petrowske was named public affairs coordinator for District 1, succeeding John Bray, who also retired this spring. Petrowske has had a 23-year career with the state, including service with the Department of Natural Resources and the Department of Public Safety, as well as within Mn/DOT's metro district. Before working for the state of Minnesota, she worked in graphic arts and design positions in two Twin Cities corporations.

Mark Weber named NCI director

Mark Weber was named the new director of the Northern Crops Institute (NCI) in September. NCI supports agriculture in this region by conducting educational programs that expand and maintain domestic and international markets for northern crops.



Weber

NCI is the international center for meeting and learning about crops produced in North Dakota, South Dakota, Minnesota and Montana. Situated on the campus of North Dakota State University in Fargo, NCI brings together customers, traders, technical experts, processors and producers for discussion, education and technical service programs.



DSPA

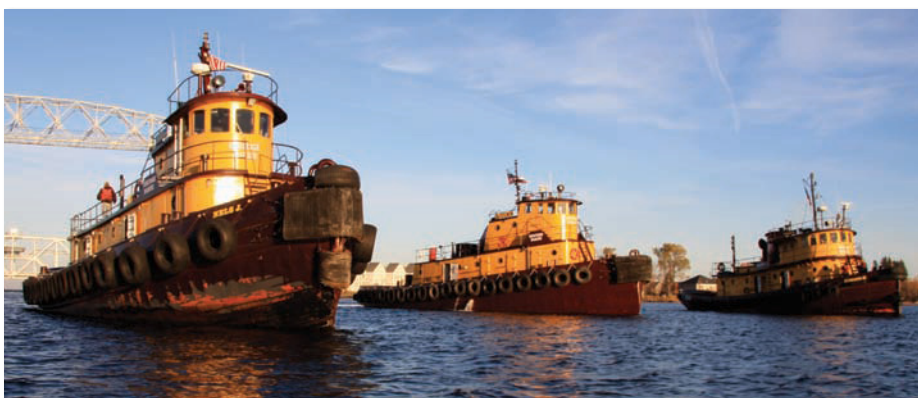
NCI groups, like this one in September, are frequent visitors to the Port.

Weber has more than 18 years of experience in agricultural leadership. Most recently he served as executive director for the Red River Valley Sugarbeet Growers Association for 12 years. He replaces Brian Sorenson, who left in March to join Dakota Specialty Milling in Fargo.

Groups of grain buyers from around the world attend NCI courses and visit several grain-specific

sites, including the Port of Duluth-Superior, each year. In fact, on Sept. 26 (see photo above), the Port Authority hosted NCI staff members (including new Director Weber), plus USDA grain inspectors and one of the Port's vessel agents, along with 28 grain buyers from 18 nations as part of the 2011 NCI grain procurement short course.

Heritage Marine adds third tug to fleet



Bob Horn

Heritage Marine's newest tug, the *Helen H.* (center), toured the harbor on Nov. 4, flanked by the *Nels J.* and *Edward H.*

A third tugboat was recently added to the Heritage Marine fleet by the father-son team of Mike and Pat Ojard. The 90-foot *W. Douglas Masterson* arrived in Duluth on Aug. 26 and has joined the company's first

two tugs (the *Edward H.* and *Nels J.*) in providing vessel assistance and tows in the Twin Ports.

The tug, built in Texas in 1967, was run under its own power from Galveston, Tex., to Baton Rouge,

La., where it was made part of a barge tow and moved to Peru, Ill., on the Illinois Waterway. There, everything on top of the pilot house was cut away, and the boat ballasted down to enable it to pass beneath a railroad bridge (which it cleared by four inches). The vessel was then towed to South Chicago and prepped for its 1,000-mile trip across Lakes Michigan, Huron and Superior. The full trek and final delivery was made by a local crew of mariners who all hail from just north of Duluth near Knife River.

Now repainted in Heritage colors, the tug is operating in the Duluth-Superior harbor as the *Helen H.*, named after Pat's wife.

Duluth-Superior hosts *Operation Down Under*, a full-scale anti-terrorism training exercise

Dozens of people and agencies were on high alert here on Aug. 24, searching the depths of the harbor for fictitious incendiary devices. The work was part of a multi-agency, full-scale anti-terrorism and maritime security training exercise in and around the Port of Duluth-Superior.

Operation Down Under, as this session was named, mobilized nearly a hundred individuals from the U.S. Coast Guard and other private and public agencies who would, in real-life, be involved in thwarting such an attack.

Coast Guard Marine Safety Unit Duluth — in coordination with the transportation industry — the states of Minnesota and Wisconsin, local law enforcement, the Port Authority and fire/emergency management agencies — conducted the full-scale terrorism-response exercise. Activities throughout the harbor included dive operations, land-based exercises, harbor patrols and operating a joint information center. The exercise was not based on any specific credible threat to the Port. City residents saw Coast Guard watercraft carrying mounted automatic weapons during the full-day exercise. This was not, however, a live-fire training exercise.



Robert Weitton

Coast Guard personnel patrolled the harbor during the anti-terrorism exercise.

Smartphone program created for Enger Tower

Visitors to Duluth's famed Enger Tower can use their smartphones to scan a barcode at the tower that leads to a website with audio links and information about the tower and its park. This feature is part of a project developed by Minnesota Public Radio as one of its *Sound Point* programs.

The collection includes: the history of Enger Tower and Enger Park; highlights of the most prominent points on the Duluth landscape; the story of how Lake Superior was formed; a recap of former landmarks that are missing from the contemporary Duluth landscape; and an overview of the working port (narrated by Port Director Adolph Ojard).

Find out more at www.minnesota.publicradio.org.



German liner visits Duluth for the last time under her old name.

Columbus explores Great Lakes and Duluth

The German luxury liner *c. Columbus* returned to the Great Lakes for two cruises this fall, stopping in Duluth on both legs of her Toronto-Chicago route. This brought to 12 the number of visits she has made to our Port since 1997.

Looking ahead to a 2012 visit by the *Yorktown* and the possible return in 2013 of the *Columbus* (to be renamed the *Hamburg*), Port officials agree that Great Lakes passenger cruising is a great boost for local economies and the Seaway.

Calumet Superior buys Murphy Oil refinery

Murphy Oil Corp. has sold its Superior refinery to Calumet Specialty Products Partners, an Indiana-based refiner and processor of specialty petroleum products. As a result of the change in ownership, the company is now doing business as Calumet Superior, LLC.

In Duluth, at the Port Authority's Clure Public Marine Terminal, the company's vessel fueling operation at Berth 3 will continue conducting business as usual at what is now called the Calumet Superior LLC Duluth Marine Terminal.

Port Passings

Robert J. Baker, 84, died on July 24, 2011, in Duluth. He was born in Minneapolis and lived many years on Minnesota's North Shore. At age 16, in 1943, he enlisted in the Marine Corps and served in the Marshall Islands and on Iwo Jima. On April 7, 1956, he married Janet Lindstrom.

When the Seaway opened in 1959, he was Duluth office manager for the Occident Terminal Division of F.H. Peavey Co. but resigned to enter the maritime industry. He joined customs broker and vessel agent Theodore W. Svensson to establish the Svensson and Baker Agency. In 1963, he created his own company, Baker Ocean Ships Agency. In 1965, he joined Guthrie-Hubner, Inc., as operations manager, retiring in 1992.

He is survived by his wife, three sons, three daughters, two sisters and several grandchildren.

Gayle DeBruyne, 84, died on Aug. 31, 2011, in Duluth. Born in Superior, he graduated from the former East High School and served in the U.S. Marine Corps. He married Gloria Johnson on Sept. 2, 1950.

He was part-owner of the family business, Allouez Marine Supply. DeBruyne retired in 1989, after nearly 50 years in the business, and enjoyed 22 years of retirement in his home in Lake Nebagamon.

He is survived by his wife, three daughters, two sons, a granddaughter and one brother.

Clarence R. "Clink" Overby, 82, died on Sept. 2, 2011, in Duluth. From 1946 to 1950 he worked for the DM&IR as a pipefitter. He served in the U.S. Navy from 1950 to 1954. On Feb. 28, 1959, he married Donna Mae Garthus.

After returning from the service, Overby worked in construction. In 1962 he joined the U.S. Army Corps of Engineers and worked around the Great Lakes as a dredge operator.

He is survived by his wife, three children, six grandchildren, three great-grandchildren and many other relatives and friends.

Sea Grant honors Minnesota projects and staff

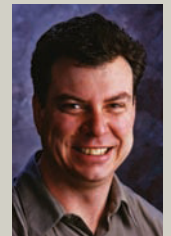
The Great Lakes Sea Grant Network, part of the National Oceanic and Atmospheric Administration's National Sea Grant Program, recently honored Minnesota staff members Dale Bergeron and Sharon Moen with the Network's Outstanding Project Award for their work in support of the Great Lakes Ballast Water Collaborative over the past two years.

Bergeron, a maritime extension educator, helped organize and facilitate four Collaborative meetings, while Moen, a science writer, prepared reports documenting three of those meetings.

The Network's Mid-Career Award also went to Minnesota staff. Doug Jensen, aquatic invasive species program coordinator, earned the award for regional and national collaborations that have raised public awareness and money to combat the spread of species like purple loosestrife, zebra mussels, Eurasian watermilfoil and spiny waterfleas across the state and nation.



Bergeron and Moen



Jensen



Educators in cold-water survival suits pause for pictures aboard the *Lake Guardian*.

Educators, scientists complete science expedition

In late July, 15 teachers and environmental educators from around the Great Lakes Basin boarded the U.S. Environmental Protection Agency's research vessel *Lake Guardian* in Duluth. They worked round-the-clock with scientists to collect data about aquatic organisms and water quality that will be used to investigate the influence of the landscape on nearshore water quality, particularly on areas near major rivers. At the end of a week plying Lake Superior's waters and investigating the shoreline, the educators were ready to integrate freshwater science into their classrooms and programs.

The Shipboard and Shoreline Science Workshop is supported by the EPA, the National Science Foundation's Division of Ocean Sciences and NOAA's Sea Grant Program through the COSEE Great Lakes, with support from Minnesota Sea Grant.

Courtesy Minnesota Sea Grant

Chris J. Benson, Courtesy Minnesota Sea Grant

Joseph H. Thompson: The sum of all her parts

By Ken Newhams

At 10:32 p.m. on Sept. 29, 2011, the tug barge *Joseph H. Thompson* arrived in Duluth to discharge limestone. Both tug and barge have the same name, with the *Jr.* added to the end of the tug's name since both

came from the former 714-foot laker *Joseph H. Thompson*. The barge came from the midbody and bow of the laker; the tug was built with steel discarded from the stern section.

The laker *Joseph H. Thompson*

was the longest boat ever built for Great Lakes service when she was put together in Chicago, in 1952. Even then she was the result of adaptive re-use: she, too, came from two separate pieces, one coming from two *more* separate pieces. The stern was provided by the back 279 feet of the *Marine Robin*, a 520-foot WWII troopship built in 1944 and mothballed in Baltimore after the war. A new midbody was built in Pascagoula, Miss., towed to Baltimore, connected to the *Marine Robin* stern and towed back to Pascagoula and up the Mississippi-Illinois waterway to Chicago. The second piece was built in Pascagoula and towed to Chicago.

Two Duluthians were in Chicago in November 1952 for final assembly and launch of the *Thompson*. Dick Olson was asked by the M.A. Hanna Co., the new vessel's owner, to move from his position as third mate on the *LaBelle* and ride the tug that would push the bow to Chicago. Dick Bibby, a local agent for Hanna at the time, came from Cleveland to watch over the launch. In Duluth, reporter Wes Harkins wrote in the September 13, 1952, issue of *Skillings Mining Review* about the two trips up the Mississippi and the launching of the new boat.

Olson and the bow arrived in Chicago a week before the stern. Soon, the two parts were connected to make the new vessel. The now-complete boat's first trip was to Escanaba to load iron ore for Cleveland, where Hanna had an official welcome for the *Thompson*.

The first men aboard the new ship had to figure out where every-



Aboard the original *Joseph H. Thompson* in 1958: Capt. Soren Sorenson and third mate Dick Olson.



The original *Joseph H. Thompson*, as observed by Dick Bibby and photographer Wes Harkins, off Knife River, Minn.

Courtesy Jeff Foster

Wes Harkins



Ken Newhams

The *Joseph H. Thompson* of today, with her *Junior* companion.

thing was and how it worked. Three years later, Soren Sorenson was named captain and took his crew to the *Thompson*, the usual practice in those days. Once again, captain and crew were not familiar with the vessel, so Sorenson called Hanna and asked if Olson could come back to the *Thompson* to help out. Sorenson retired three years later, and Olson rose up the ranks. He retired in 1987.

Years later, a Superior businessman, Duluth native Jeff Foster, was introduced by his wife to a friend of her family. The friend was Dick Olson, who soon told Foster that he had been a captain on the Great Lakes. Foster mentioned that his

grandfather, Soren Sorenson, had also been a Great Lakes captain — on the *Joseph H. Thompson*, in fact. Foster and Olson have had many things to talk about ever since.

Foster went on to found Jeff Foster Trucking and still maintains an avid interest in shipping. He bought the old Coast Guard cutter *Sundew* before she could be sent away or scrapped. In September, Foster took the *Sundew* out into the lake and called Olson to tell him he would be coming by his home to give him a whistle salute.

Several years after the *Thompson* was launched, Wes Harkins and Dick Bibby took a small boat out to get the picture you see on the facing

page, taken just off Knife River. Foster is waiting for a new photo opportunity when the *Thompson* is in town and he is out on the *Sundew*. Maybe Olson will get a double salute — one from Soren's old boat and the other from Soren's grandson's old boat while Olson watches them pass by.

And maybe Harkins and Bibby will take another picture, 60 years after their first, as another Great Lakes story comes full circle.

Ken Newhams is the founder of Duluth Shipping News. A detailed brochure, with many pictures, was printed in 1952 and has been reproduced on Newhams' website: <http://www.duluthshippingnews.com/building-the-joseph-h-thompson/>

Old photos bring reminders of coal's past

By Patrick Lapinski

A recent donation of photos to the Duluth Seaway Port Authority brought clues about the origins of a once-prominent coal dock and reminded us that the history of our Port is never too distant.

The Island Creek Coal Company (originally U.S. Coal & Oil) of West Virginia was built from the ground up with the acquisition of 30,000 acres along the Copperas Fork of Island Creek in Logan County, W. Va. In 1904, the first trainload of coal was shipped from the rich seam known as the Logan Field. Within a few years Island Creek employed thousands of workers across 10 mines, many living in the company mining community of Logan.

Island Creek controlled not only the mining of its coal, but also its distribution. Its primary markets were metropolitan areas along the Eastern Seaboard from Philadelphia to Boston. However, as the industries and people of the iron ranges of northern Minnesota became an important market in the early 20th century, the Port of Duluth-Superior grew as a western distribution hub for Island Creek coal.

The Island Creek Coal Dock Company (incorporated in Maine) built its first dock in the Duluth harbor in 1912 at the foot of 50th Avenue West. In a report to their shareholders, Island Creek officials said they expected the Duluth dock to handle

around 1.5 million tons of coal annually and store 750,000 tons on the 38-acre site. An estimated \$500,000 was to be spent on developing the dock and coal-handling equipment. Simultaneous to the construction at Duluth, Island Creek leased an existing dock on the Superior side of the harbor with a capacity of 100,000

ported in *Coal Trade Journal* put the overall coal handling capacity in the Twin Ports in 1915 in the neighborhood of 20 million tons. In 1918, six years following Island Creek's debut in the harbor, its annual coal receipts reached 11 million tons. A decade later, a U.S. Army Corps of Engineers harbor study noted that the import of coal accounted for "92.6 percent of the traffic received at Duluth-Superior in 1929."

Thus, in 1912, Island Creek was right in the middle of the mix of local coal docks along with others such as Pittsburgh Coal, Reiss Coal, Clarkson, Northwestern Fuel, Northern Coal and Dock, the Boston Coal Dock & Wharf Company, M.A. Hanna, Berwind Fuel, Carnegie Fuel, and the Great Lakes Coal & Dock Company.



Island Creek coal started its trip to Duluth-Superior in the mines of West Virginia.

tons. Island Creek would soon be in a strong position to gain its share of what it called the "lake trade."

The use of coal as a fuel gained prominence in the mid 1880s. Before that, wood was the primary source of fuel for heating. The first dock in Duluth was opened in 1881 by the Northwestern Fuel Company. Between 1881 and 1884 three more docks were built in the harbor, and the boom was on. In 1886, receipts for coal in the harbor totaled 736,000 tons but by 1900 had surpassed 2.5 million tons.

Undocumented estimates re-

In today's era of self-unloading vessels, little infrastructure is needed on a dock to handle the receipt of bulk commodities. In the heyday of coal docks in the harbor, however, a sizable investment in handling machinery was needed to make the operation work efficiently. It was the era of the traveling bridge crane.

The simple structure of a coal dock consisted of a large open storage space, usually about 500 to 600 feet wide by 1,000 to 2,000 feet long. Railroad tracks flanked each side of the dock, and at least one side was dedicated to mooring space for ves-

sels. The back side of the dock usually consisted of utility poles for electrical lines and access roads for dock equipment. The inside of the dock was used for storage, bituminous coal stored outside. Anthracite, or “hard” coal, was stored in an enclosed shed.

Moving the coal was accomplished with a moveable steel bridge, or trestle. It was supported on either end with steel legs mounted on flanged wheels riding atop steel rails running parallel to the dock. The bridge operator could easily move the rig along the dock when unloading a ship or distributing coal to the storage yard. A typical bridge spanned 250 feet at a height of about 50 feet. It was not unusual for large docks to be equipped with two of these bridges, which could also be coupled to cover 500 feet.

On the ship mooring side, the traveling bridge was fitted with a cantilevered steel boom on a hinged apron that could be lowered over the rail lines on the dock and across the deck of a ship. This portion was raised to an upright position when vessels approached and departed the dock. The opposite end of the bridge was also cantilevered to extend over the rail lines and roadway to accommodate shore-side rail and truck loading.

The actual unloading was accomplished with a grab bucket suspended from an operating station on the bridge crane. The bucket, averaging two to five tons per lift, was lowered into the cargo hold of the vessel to

retrieve the coal. After the bucket was lifted from the hold, the coal was deposited into a screening plant or distributed in the storage yard. In some cases the screening plant was attached to the traveling crane.

Each coal dock operating at Duluth-Superior had its own specific methods for screening, storing and distributing coal. The general man-



The trestle, or moving bridge, was a key component in handling cargo at the early-20th century coal dock.

Photos courtesy Great Western Dock & Terminal

ner of coal handling, though, was similar. For instance, some docks would use a fixed operator station housed atop the traveling crane, while other docks might use a man-trolley where the operator rode in a moving cab. Later, as technology evolved, conveyor belts were suspended from the bridge to distribute the coal along the dock.

Less than a handful of firms had expertise in the manufacturing of bridge cranes. The Island Creek dock at West Duluth used two Heyl-Peterson cranes equipped with six-ton clamshells. Operating at maxi-

mum efficiency they could unload about 600 tons per hour. In those days an average cargo was 8,000 to 12,000 tons, so it would take 12 to 24 hours to unload a vessel.

By the mid-1920s Island Creek ceased direct operation of the dock at Duluth yet retained a strong presence in the harbor. In 1938 Island Creek returned to the fore-

front when it purchased a majority interest in the Carnegie Coal Corporation, which included two large docks at Duluth and Superior operated by a subsidiary, the Carnegie Dock & Fuel Company. With its colorful brand name of Scarlet Flame, Island Creek continued to serve the Upper Midwest for many years.

Writer and photographer Patrick Lapinski is a native of Superior. He concentrates on the Great Lakes maritime industry and its history. www.inlandmariners.com



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