Duluth Seaway Port Authority NORTH STAR PORT

.....

Fall 2014

Freight has a way of finding capacity

og jams. Failing service. Delivery delays. We've been hearing the stories for months now about rail backlogs across the Upper Midwest. Farmers, papermakers, utility companies, pellet plants and steel producers — all trying to get rail companies to honor their contracts to get products moving on schedule again to and from the Port of Duluth-Superior (and in the entire Upper Midwest, for that matter).

The Harbor Line

Vanta E. Coda II Port Director



The window on this 2014 shipping season

is inexorably closing. At this time of year, stockpiles of coal and iron ore pellets on the Lower Lakes should be growing, not dwindling. One producer, Cliffs Natural Resources, has

resorted to using trucks — up to 100 a day — to transport pellets from the Iron Range to the Port to ensure that an adequate supply continues for steelmaking operations down the Lakes.

This situation, while painful, is not unprecedented. Industries that rely on others to transport their products were desperately stressed only a few years ago, in 2006-07. Ship, barge, truck and rail capacity was scarce, and freight costs were over the moon.

Freight got moving again thanks, in part, to carriers building new capacity a good solution. Also in part to the Great Recession — a painful solution.

We've spent the last six years shellshocked from the Great Recession and fearful to get too far ahead in capital expenditures. Making big bets on transportation infrastructure is tough. Take ship operations. In 2006 the shipbuilding industry had a full order book but, by the time the first wave of new ships was delivered, the freight recession was under way.

Making adjustments to land-based freight capacity is trickier yet, as it involves the human element of skilled labor and fixed transportation networks. Transportation workers are in demand and will continue to be in demand. It is estimated that the U.S. trucker shortage is currently at 30,000 drivers and expected to reach 100,000 in four years ... and 239,000 by 2022.

Rail demand is not in a much better place. In addition to finding and retaining rail workers, the railroads must make huge bets on fixed capital expenses. Laying track and setting networks that will flow with 50-year life spans is difficult. The amount of operating track has remained relatively static over the past 10 years, yet the amount of ton-miles is increasing. This does not mean new track is not being laid; it simply means that some track is no longer serving the public and is being retired, with new traffic patterns developing and track being laid. A decade ago, the rail industry was constrained in the western coal fields and spending a great amount to build new track capacity. This capacity is still available, but not being fully used.

No one was planning on an energy revolution that crashed coal prices and consumption and sent fracking sand to gas and oilfields in the hinterlands of rail networks. Much of today's discussion centers on oil trains as the culprit of gridlock. Some perspective would be helpful. In the first quarter of 2014, the Class I rail carriers originated 110,164 carloads of crude oil; this represents 1.6 percent of all originated rail traffic. Grain does that number in less than a month.

The intermodal 2014 weekly average is 258,850 carloads, a year-over-year increase of 5.5 percent. Crop yields continue to

increase, U.S. corn enjoying a 20 percentplus average yield increase over the past 10 years. 2014 is expected to be a full house of crop production with corn and soybeans having record harvests and wheat running above average.

At the same time, metallic ores and metals loadings will likely double 2010 loading levels in 2014. So, once again, this year or next, we are approaching peak freight levels — though the freight mix and traffic patterns have changed.

So what is old is new again. The changing freight mix and current infrastructure are challenging.

However, there is a silver lining: *Freight* has a way of finding capacity.

We at the Port and the Great Lakes St. Lawrence Seaway have capacity. Some are sure we could double what we handle today. I believe that is underestimating our capability. Our Port is at the center of two important U.S. trading partners, our largest trading partners in fact ... Canada and the European Union. The Great Lakes region supports the world's fourth largest economy and the powerhouse of North American manufacturing. We are working today at the Port to get out the message that capacity is available.

One of the features in this current edition of our magazine speaks to the connection our capacity has with large trading partners. When the Spliethoff Group found its way back to the Head of the Lakes it was pleased to find opportunity. So pleased that Splietoff plans on coming more often with direct sailings to and from the heart of the EU via Antwerp. So when you hear complaints in the freight community, let the complainers know that the short route to capacity is water ... starting here in the Twin Ports with access to the world.



1200 Port Terminal Drive Duluth MN USA 55802-2609 (218) 727-8525 / (800) 232-0703 Tel: Fax: (218) 727-6888 E-mail: admin@duluthport.com

Steve Raukar, Hibbing, president Ray Klosowski, Duluth, vice president Cal Larson, Fergus Falls, treasurer Rick Revoir, Duluth, assistant treasurer Norm Voorhees, Duluth, secretary Chris Dahlberg, Duluth Tony Sertich, Chisholm

Executive director: Vanta E. Coda II Chief financial officer: John Kubow Industrial development: Jeff Borling Trade development: Ron Johnson Facilities manager: Jim Sharrow Public relations: Adele Yorde Government & Environmental: Deb DeLuca

Lake Superior Warehousing Co., Inc. 1210 Port Terminal Drive Duluth MN USA 55802 (218) 727-6646 Tel: (218) 727-6649 Fax: E-mail: admin@lswci.com | www.lswci.com

This magazine is produced by the Duluth Seaway Port Authority; Adele Yorde, PR manager. The magazine is prepared for publication by Fortner WordWorks; Larry Fortner, editor North Star Port is printed by Pro Print of Duluth and mailed by BarCodes Plus of Superior.



Many workers on the waterfront have colorful nicknames. We call this guy Red.

NORTH STAR PORT

Fall 2014 / Volume 46. Number 3



Concentrating on success

4 Magnetation reclaims waste tailings to make high-quality concentrate



6 Altec HiLine celebrates expansion at Port Terminal



Direct sailings to & from Europe

Smaller-volume shippers have new option to consolidate freight

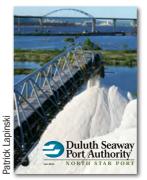


Salt trade booming **10** Mountains pile up in preparation for winter



Liquefied Natural Gas 19 Research and planning continue in pursuit of alternative marine fuel

On the covers _



On the front:

With the Richard I. Bong Bridge in the background, the C. Reiss dock in Duluth receives a load of deicing salt from the Algoma Transport.

On the back:

After loading nearly 20,000 metric tons of wheat at Gavilon Grain in Superior, the Mamry would head to Europe on Oct. 1.



Magnetation concentrates on success; beneficiation still a grinding business

Three sections of Magnetation's new 6,200-hp primary ball-mill shell arrived in the Port of Duluth from the Netherlands on Sept. 26 aboard the 656-foot bulk carrier *Federal Maas*. The grinding shells are being installed at the company's newest beneficiation facility near Grand Rapids, Minn., along the western edge of Minnesota's Iron Range.

"The company's goal is to have Plant 4 up and running by Christmas," says Matt Lehtinen, president and COO. "With an infusion of \$100 million in capital earlier this year, we've been able to fast-track construction of this processing facility plus begin production three months ahead of schedule at our brand new pellet plant in Reynolds, Ind."

Magnetation was one of the first companies in the world to reclaim and process waste tailings left over from long-ago iron ore mines to produce high quality concentrate usable in today's nugget and/or pellet production.

Beneficiation involves treating a raw material (in this case, extracted ore tailings) to improve its physical or chemical properties and then concentrating it into a higher grade product. As Lehtinen describes it, Magnetation processes nonmagnetic iron ore (in this case, hematite) using high-intensity magnetic separation and flotation to take out impurities. The process includes several steps from washing and grinding tailings with steel balls inside those milling shells to separating the higher value iron deposits to create a fine, powdery concentrate.

Magnetation's first beneficiation operation began near Keewatin in February 2009. Plant 2, located 20 miles west, near Bovey, opened in May 2012. Later



A ball mill shell is lifted from the *Federal Maas* at Duluth's Clure Public Marine Terminal. The shells are being installed in Magnetation's beneficiation plant near Grand Rapids, Minn.

that same year, a third operation, Mining Resources LLC — a joint venture between Steel Dynamics Inc. (80 percent) and Magnetation Inc. (20 percent) came online near Chisholm on the eastern end of the Iron Range. The company's concentrate serves as the main feedstock for Mesabi Nugget near Hoyt Lakes. At least a half-dozen shipments of those iron nuggets are expected to move through the Port during the 2014 shipping season (as reported in



Adam Stromquist, with Lake Superior Warehousing, helps discharge grinding mill shells from the Federal Maas at the Clure Public Marine Terminal.





Left: The first of three ball mill shells arrives at Magnetation's Plant 4 in Grand Rapids, Minn.

Above: A similar, fully assembled grinding mill already in operation at Magnetation.

the summer 2014 edition of North Star Port, Page 12).

Plant 4 is under construction and is expected to be operational within weeks. That 2-million metric ton beneficiation operation will furnish additional concentrate for the company's brand new pellet plant in Reynolds, Ind., where a first load of pellets rolled off the line on

Sept. 29, 2014, more than three months ahead of schedule. Those pellets, in turn, serve as feedstock for Magnetation partner AK Steel's blast furnaces in Ohio and Kentucky.

To what does Magnetation attribute its success so far? "Timing," says Lehtinen. "We've managed to secure financing and hit milestones 'just in the nick of time'— ahead of price drops in a very volatile global iron ore market. Location and logistics matter. We have a longterm contract with partner AK Steel, multiple transportation options and access to one of the largest iron ore formations in the world — enough to keep us producing for at least another 100 years."

Altec HiLine, at the top of its game, reaches new heights with expansion

Rows of gleaming white bucket trucks stand ready for delivery outside the Altec HiLine, LLC, manufacturing facility on Duluth's Port Terminal Drive. The company manufactures some of the highest reaching, vehicle-mounted aerial lift devices in the country — and is at the top of its game.

Altec HiLine recently celebrated the completion of a major expansion with plant tours and a VIP reception, inviting customers, strategic partners and community leaders inside for a close-up look at the state-of-the-art manufacturing facility.

The project expanded the company's production capabilities, upgraded technology and equipment, and improved efficiency. It added manufacturing, warehouse and office space to enable Altec to better serve customers in the region.

The Duluth Seaway Port Authority owns the industrial facility where Altec HiLine is located and worked closely with the company and its parent organization, Altec, Inc., headquartered in Birmingham, Ala., as well as other economic development partners, to make the expansion possible. Financial incentives were provided through the Minnesota Investment Fund, \$1.12 million in leasehold improvements were made by the Port Authority, and other tenant businesses were relocated to accommodate the growth.

"We approached Port Authority officials about making the entire facility available, and they met our needs for expansion in a way that benefited all the companies involved," said Dave Faynik, general manager of Altec HiLine. "It was a win-win."

For example, A.W. Kuettel & Sons,



Present for the Altec HiLine ribbon-cutting on Oct. 8 were (from left): Duluth Mayor Don Ness; Vanta Coda, Port Authority executive director; Jon Styslinger, Altec, Inc. president; Dave Faynik, Altec HiLine general manager; Minnesota Lt. Gov, Yvonne Prettner Solon; and Dave Masters, vice president of operations, Altec Industries Inc.



The floors are gleaming and the shop is spotless as Altec HiLine celebrates its major expansion.

Inc., expanded to a new \$1.8 million facility in the Duluth Airpark, an industrial park managed by the Port Authority. The move will enable the industrial metal fabricator and mechanical and roof contractor to grow and serve new markets. Chicago Tube & Iron relocated to a vacated industrial facility in Proctor, helping to replace jobs lost in that community when Dynamic Structural Steel closed its doors.

"The Port Authority has been good to us throughout the years by configuring the building and making capital improvements to our specifications," Faynik said. "Walking through the facility, you can see that it is a bright, organized, positive workspace."

"Altec has invested in both the property and in bringing jobs to the community," said John Kubow, Port Authority chief financial officer. "It is a world-class organization."

Altec is a global leader in vehiclemounted aerial devices, digger derricks, cranes, and specialty equipment for the electric utility, telecommunications, tree care, construction, and lights and signs industries. Its tallest equipment is produced at the Altec HiLine plant and is



Altec equipment reaches for the sky during the company's open house in October.

distributed to both regional and worldwide markets. For regional companies that depend upon Altec products, having a manufacturing facility in Duluth is a huge benefit in terms of sales, service and convenience.

"We are proud of the outstanding relationship we have with the city of Duluth and the surrounding communities," said Jon Styslinger, president of Altec, Inc., who attended the Oct. 8 celebration. "Our focus at Altec is on customer satisfaction, continuous improvement and teamwork. Those key elements came into play with the expansion of our Duluth operations.

"Altec HiLine associates are committed to working together as a team to provide total customer satisfaction," Styslinger added. "Those efforts helped to make the reinvestment in our Duluth facility a logical business decision — one that will benefit our customers, strengthen the fabric of the community and help grow the local economy."

"The expanded plant is more efficient, more sustainable and a better place to work for our growing number of associates," Faynik said, noting that Altec HiLine is on track to meet its job creation targets. "We are finding a great resource of talented people right here in this region. If you look at most of the associates we hire, they come out of area colleges and universities, often through internships that transition into permanent positions."

Altec HiLine continually reinvests in its people through onsite training programs and certifications. The company works with local colleges to develop customized curricula around specialized job skills, such as engineering, electrical and hydraulic assembly, welding and computer animations, to ensure a qualified workforce.

"We want to create opportunities for people out of local schools to find wellpaying jobs and achieve better lifestyles," Faynik said. "Altec invests in the communities where it does business. This is just another example."

Altec HiLine has been a valuable addition to the Twin Ports community since the company was launched as a subsidiary of Altec, Inc., in 2002. It shares a corporate commitment to deliver customer satisfaction by building equipment that is safe, rugged, reliable and backed by outstanding customer service — and will keep reaching higher as it looks to the future.

Port Authority goes the distance for businesses

Jeff Borling describes a typical economic development deal for the Duluth Seaway Port Authority in terms every Northlander understands. "Our deals are like snowflakes; no two are alike," said Borling, director of industrial/economic development for the Port Authority. "We support economic growth and have the resources to help viable businesses succeed."

Those resources include waterfront and inland sites, a wide range of financial tools and a network of experienced partners.

The Port Authority is one of Duluth's largest owners and operators of industrial land and buildings. Its building space includes 360,000 square feet of indoor warehousing plus 330,000 square feet leased to



Borling

manufacturers and commercial tenants. It owns significant acreage, including 12 lots of one to five acres in the Duluth Airpark, the 28-acre Dock C&D industrial site and a handful of smaller lots around Rice's Point. It also is working to develop an industrial park on the former U. S. Steel Duluth Works site in far western Duluth.

A.W. Kuettel & Sons shares a long history with the Port Authority. The family-owned mechanical and roofing contractor and industrial metal fabricator leased space in the Port Authority's industrial building on Port Terminal Drive for more than 16 years. In 2012, it expanded and moved to a new building on Airpark land purchased from the Port Authority. The move allowed Altec HiLine, LLC, another tenant in the Port Authority's industrial building, to expand while positioning A. W. Kuettel for growth.

"The Port Authority staff made the transition go smoothly," said Adam Kuettel, project manager, A.W. Kuettel & Sons. "They found us a piece of property that worked and let us rent from them on a month-to-month basis until we could work out a deal to purchase the land."

Both projects involved collaboration with the city of Duluth, St. Louis County, the state of Minnesota and other agencies, including the Port Authority. "Big projects make headlines, but we don't disappear after the press conference," Borling said. "We are committed to supporting tenant businesses over the long haul."

Flexibility is key. The Port Authority is governed by laws and statutes but remains nimble when working with businesses. "There are times when even the most successful businesses hit rough spots," Borling said. "Not all landlords can defer rent or loan payments while a business gets back on its feet, but our board can, in support of our mission."

Duluth businessmen Kelly Herstad and Jerry DeMeo experienced this flexibility firsthand. When Reach All Manufacturing closed its Duluth plant in the mid 1990s, Herstad, DeMeo and two other investors purchased a portion of the business to manufacture, sell and service high reaching, vehiclemounted aerial platforms. Their new business, NorStar Products International, operated in the same Port Authority-owned building that Altec HiLine now occupies. While their investment preserved

a number of good-paying manufacturing jobs in the community, the early days were rocky.

"Some months were lean, but we had a good relationship with our landlord — the Port Authority," Herstad said. "More than once they helped us with cash flow."



"We work with our tenant companies

through tough times," said John Kubow, Port Authority chief financial officer. In the case of NorStar Products, that meant approving a \$300,000 loan for product development. "A utility customer requested a very high aerial unit, and we had to determine whether to take the risk. What convinced us was that there actually was a purchase order."

That decision paid off for the owners, the Port Authority and the broader Duluth community and made the company attractive to Altec, Inc., of Birmingham, Ala., which purchased NorStar Products' assets in 2002 and established Altec HiLine, LLC.

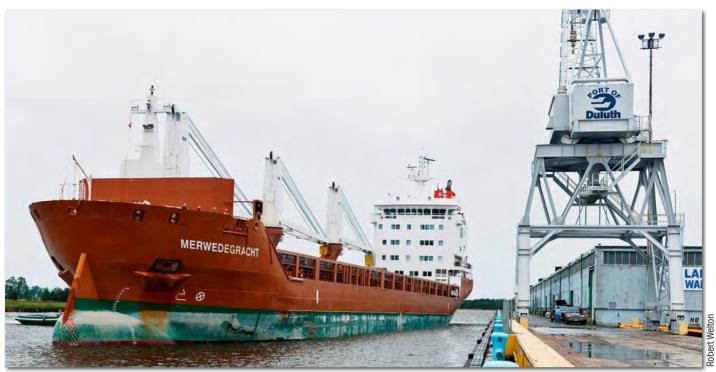
"When we asked to address the Port Authority board about the potential sale, they put us at the top of the agenda," Herstad said. "The board approved ... and made it easy for us to close."

"We had a qualified workforce, a nice facility and a good relationship with the Port Authority," DeMeo said. "It allowed Altec to take over the lease and kept the business here in Duluth."

"Businesses have ebbs and flows, ups and downs," Borling said. "We are not interested only in your groundbreaking. Once you are a tenant, we are your partner through all business cycles."



A.W. Kuettel has expanded its manufacturing division and created five jobs since moving to the Duluth Airpark. Pictured is Jesse Smalley, burn table operator.



The Merwedegracht arrives on Sept. 10 to discharge project cargo from Europe for North Dakota and Manitoba

Europe just got a whole lot closer

An exciting new dimension is being added to Duluth-Superior's global transportation network. In the precursor of what will become direct, all-water sailings between Europe and Duluth in 2015, the Spliethoff Group sent three ships ships to Duluth this season as the Dutch-based company expands its

international network of parcel sailings. Spliethoff looked to the Duluth Seaway Port Authority and



Lake Superior Warehousing (LSW) to forge a unique alliance for shippers looking for cost effective alternatives and faster transit times to accommodate consolidated shipments of small lots of commodities.

These regular parcel sailings between Antwerp and Duluth offer customized solutions that better align supply chains for companies in a wide variety of niche markets. Working closely with the Port Authority and LSW, these sailings can accommodate everything from smaller lots of breakbulk, heavy lift and project cargoes to specialty agricultural products, containerized freight, machinery, manufacturing components, iron and steel and more.

"We are establishing this service as the next step in our growth strategy in the U.S. and Canada," said Bart Peters,



director Atlantic Department, Spliethoff Group. "This is a concept which has been proven before in our cross Atlantic trades, and now we bring this all the way to Lake Superior. Our Great Lakes-fitted vessels are well equipped for this, and the flexibility of the vessels in our fleet allows for many types of cargo to be carried on the same voyage."

In addition to expanding trade development opportunities here in the Twin Ports and along the Great Lakes-Seaway system, having regular sailings this far inland will also ease pressure on existing road and rail routings to and from coastal ports. Users will be able to avoid the congestion, higher costs and delivery delays experienced at terminals along the Eastern coast.

"With approximate 21-day transit times, these new sailings offer to the

> market compelling service options from a door-todoor perspective — meeting delivery schedules for

companies and customers alike across multiple industries here in the Upper Midwest and abroad," said Vanta Coda, Port Authority executive director. "Location. Connectivity. Intermodal service to and from inshore hinterlands. These are all crucial elements to transportation logisticians trying to streamline supply chains."

For more information, contact Ron Johnson, Port Authority trade development director: rjohnson@duluthport.com

Booming salt trade aims to keep traffic moving on winter roads and highways

By Patrick Lapinski

"I've never seen so much salt on the docks this early in the year in at least a decade," says Mike McCoshen, president of the Hallett Dock Company. "The salt trade right now is booming. I think for 2014-15 there's a little bit of panic based on what happened last year. We completely ran out of salt last winter."

Nobody wants to be in that position this year, so rest assured that the right people on the waterfront are working to ensure that there will be plenty of salt on hand for this winter.

Salt has been handled in the Twin Ports since 1880, and it was as valuable a commodity then as now, if for different reasons. One of the challenges of living during

settlement days in the Twin Ports was a lack of refrigeration, so salt was in demand as a preservative for meat, game and fish. Today, salt is used primarily as a highway deicer in addition to its uses in agriculture, water conditioning and dust control.

Having the salt on hand in time for the next snow season is the result of a process that began months ago when the previous winter-summer changeover occurred. State and county highway departments estimated their needs, as did regional hubs like Duluth and Superior, along with smaller municipalities and so on farther down. Then, in late spring



Unloading a cargo at Hallett Dock No. 8 creates a towering mountain of salt.

and early summer, requests for bids are sent out for the next winter's supply. The salt companies then choose which orders they want to bid on as the scramble for contracts begins. Only after the contracts have been negotiated and signed does the salt begin flowing into Port.

McCoshen explains how these contracts work at an elementary level. In his example, the city of Superior wants 10,000 tons of road salt. "They'll put that out and call three salt companies, and the salt companies will bid on it," McCoshen says. "Say Morton gets [the contract]. The city is then obligated to take 80 percent of that, so if it's a 10,000-ton bid, it is obligated to take 8,000 tons, even if it turns out to be a mild winter. On the flip side of that, the salt company is mandated to have available 120 percent of the bid. So they need to have 12,000 tons here for the 10,000ton bid if we have a drastic winter."

In the Upper Midwest, three major companies are competing in the salt trade - Morton, Compass Minerals - previously known as North American Salt Company - and Cargill, recently returning to the market after an extended absence. Within the Duluth-Superior harbor, Compass Minerals has the largest presence, followed by Cargill. Morton has not been very active in the area in the past several

years. At one time Morton Salt did operate a small-capacity processing plant on the Superior side of the harbor, near the head of the Tower Avenue slip.

The majority of the salt arriving in the Port is unloaded from ships at Hallett's Dock No. 8 in Superior. "It comes on lake vessels from various ports, all underground mines," says Hallett's McCoshen. "All the Compass Minerals salt comes from Goderich, Ontario, on the eastern side of Lake Huron. The Morton salt comes from Windsor, Ontario, which is really just across from Detroit, and the Cargill salt comes from the Cleveland area." Smaller amounts of salt, maybe one or two boatloads a year, are handled at the C. Reiss Terminal and at the Compass Minerals near-downtown Duluth dock. A small amount of liquid product also arrives at Compass Minerals by railcar throughout the year.

Using the Great Lakes to transport salt from the mine to the Twin Ports is by far the most efficient and economical means to deliver it. Ships, carrying 20,000 to 30,000 metric tons per load, bring in salt throughout the year, beginning in June and well into November. "The water by far is the most advantageous. You get something like 800 truckloads on one boat, so the economies of scale are huge," says Mark LaLiberte, plant manager at Compass Minerals in Duluth. "It has less impact on the environment if you look at the emissions factors for trucking versus using the Great Lakes. That's a high item on everybody's lists these days."

The salt that arrives in the harbor is commonly stored on impervious pads and secured under protective tarps. Nearly all of this is committed for highway use and is treated with an anticaking agent that prevents the salt from clumping. Making the salt available for distribution to the various entities via a network of trucking companies and private contractors is all part of the logistics of handling the salt under the watchful eye of the Hallett Dock Company.

"Dock 8 currently has on hand somewhere between 120,000 to 140,000 tons of salt," says McCoshen.

You would think that telling one pile of salt from another pile would be next to impossible, especially in winter, but in reality it's easy. The secret is in the color of the anti-caking agent applied to the salt.

Morton's salt has a distinctly blue tint, Cargill's salt has a green hue and Compass Minerals' salt is just white.

Deicing is only one of many applications for rock salt. At Compass Minerals' plant on the Duluth waterfront, untreated rock salt is processed into a variety of products. "My facility is the most diverse because I'm producing agriculture feed salts, water conditioning salts and deicing products," says plant manager La-Liberte. The downtown dock receives a handful of ships each year to supply the needs of the plant.

Compass Minerals' American Stockman line of packaged and block salt blended with minerals is a staple in the agricultural feed industry. The salt blocks, each weighing 50 pounds, are made one at a time at the plant on Railroad Street. The 750-ton block press that is used to make salt blocks was installed in 1954 and is still producing.

Bagged water softening products are also produced at the plant, serving both residential and commercial markets, such as water conditioning and industrial applications. The Duluth plant can process around 100,000 tons of salt annually. The salt used in these products comes from the Goderich mine and is considered to be among the purest in the world. The Goderich mine is one of three owned by Compass Minerals.

Goderich itself is a quaint commu-

nity built on a bluff overlooking the expanse of Lake Huron. Century-old houses line the top of the hill, along with an old lighthouse overlooking the harbor and the mine. Years ago, according to local lore, a man prospecting for oil accidentally discovered the salt deposits there. It proved to be a most valuable find, and mining began in 1880 on a small scale.

Modern mining came in earnest in 1959 when a mineshaft was constructed to access the salt. Salt is mined from the ground like coal and ore, but at much greater depths. The mining at Goderich takes place about 1,800 feet below the surface of Lake Huron.

A variety of salt products also come to Duluth by rail from Compass Mineral's Great Salt Lake plant in Utah for the production of water-conditioning salts, agricultural salts and industrial dust control and deicing brines. Magnesium chloride brine is one of the products used as road stabilization, dust suppressant and deicer. The product is stored in an 80,000-gallon tank farm and is distributed by truck or by rail. The territory serviced by Compass Minerals includes a wide swath of northern Minnesota and Wisconsin and reaches a little bit into the Dakotas, Iowa and Illinois.

Salt is warily eyed as a harbinger of winter. To prepare for the rigors of the season, humans and machines have been mining all summer. As a result, salt is here and more is on the way. So drive on.

Pat Lapinski is a Superior native and a maritime photographer, historian and author. www.inlandmariners.com



The Capt. Henry Jackman arrives on Aug. 28 with over 29,000 tons of salt for Hallett Dock No. 8 in Superior.



Salt from Goderich, Ontario, on the eastern side of Lake Huron, flows into a hold of the Algomarine. Compass Minerals in Duluth gets its salt from Goderich.



The Radcliffe R. Latimer discharges salt at Compass Minerals in Duluth



Salt's new name in Duluth

Compass Minerals' physical presence has deep roots in the harbor, even though its name is relatively new. Old habits die hard, and some in the Twin Ports still say "Cutler-Magner" when referring to the present salt operation because that Duluth-based company ran the local operation for 100 years. But then came change.

Graymont Western U.S. Inc. purchased Cutler-Magner in 2007, but the plant continued operating as Cutler-Magner until 2009, when Graymont sold its salt business on the Duluth side of the harbor to Compass Minerals of Overland Park, Kan. Graymont continues to operate a lime plant in Superior.

A core of former Cutler-Magner employees still carry on the tradition of quality and hard work established by their forebears. No one is prouder of this heritage than Mark LaLiberte, representing the third generation of his family to manage the plant. "My grandfather [Henry La-Liberte] started with Cutler-Magner," Mark says, "and my father [Clarence La-Liberte], my cousins, myself, my brother."

The change in ownership has been good, says Mark. He notes how Compass Minerals has a presence in big box retail stores like Menard's and Home Depot, which is helping the salt business grow. "Cutler-Magner concentrated on the smaller customer base - more traditional agriculture-based distribution," says Mark. "Since we were purchased by Compass Minerals, our markets have broadened."

In 2013 the Compass Minerals plant at Duluth was recognized by the company with its President's Award for the best environmental health and safety performance within all of Compass Minerals. "That was a great accomplishment for a division of the company that's relatively new," says LaLiberte.



The staff of SCS Interiors and a few guests gather for a silver anniversary ribbon-cutting celebration.

Celebrating 25 years

SCS Interiors celebrated its 25th anniversary on Sept. 11 with a ribbon cutting and open house in its manufacturing facility at Duluth Airpark. The company has its roots in the automotive upholstery industry. David Hudyma purchased a local company (Brigham Upholstery) in 1989 and continued producing award-winning custom interiors and

Paul Scinocca

prototypes for vehicles. In the late 1990s, the opportunity to create a prototype for planes being built by Cirrus led to a new name (SCS Aircraft Interiors) and a bright future in the aerospace industry.

In 2010, while still actively producing custom upholstered products for planes, the company made a strategic decision to expand and, in doing so, changed its parent company name to SCS Interiors.



That re-branding enabled the company to grow additional lines and specialty services for aerospace, transportation and commercial uses including applications in restaurants, auditoriums, waiting rooms and other venues.

Owners David Hudyma and his son Mike have guided this Minnesota-based company through the years. Today, SCS Interiors sells to customers worldwide from headquarters in a state-of-the-art, 20,000-square foot facility on Prosperity Road, on land purchased from the Duluth Seaway Port Authority in 2008. "The story of SCS Interiors is the story of small business entrepreneurship at its best," said Jeff Borling, Port Authority industrial/economic development director. "It is the story of how company leaders recognize opportunities to serve new market sectors and grow their business to capitalize on those opportunities, whether they be in aviation or elsewhere."

Paul R. Tregurtha makes unscheduled stop

Folks who gathered at Duluth's Bayfront Festival Park on Sept. 20 for a hot air balloon festival got some unexpected excitement. The *Paul R. Tregurtha* ran aground just behind the park at around 3:15 p.m. and was stuck for more than three hours. She broke free under her own power, with the help of two Great Lakes Towing Company tugs, and made her way to the Clure Public Marine Terminal, where Coast Guard inspectors checked for damage and cleared the ship for departure just before 1 a.m. Sunday. The 1,013.5-foot *Tregurtha* is the longest vessel on the Great Lakes and is the unofficial "Queen of the Lakes."



The Port Authority hosted a trade group from Italy in August.



Grain buyers from 18 countries visited Duluth-Superior in October.

Global interest grows in region's grain

Pizza is an Italian specialty, but the secret ingredient may be U.S. hard red spring wheat. In fact, Italy is Europe's largest importer of that commodity, and six Italians visited the Port of Duluth-Superior in early August to investigate this year's crop (in Montana, North Dakota and Minnesota) as part of a U.S. Wheat Associates European trade team. A representative from the largest spring wheat broker in Italy also joined the group. Members visited with wheat farmers, breeders, grain traders and export officials to gain a greater understanding of the U.S. wheat supply chain as well as how inspectors and exporters meet and monitor Italian specifications. Six weeks later, 30 additional grain buyers from 18 nations visited the Duluth Seaway Port Authority. They were part of Northern Crops Institute's Grain Procurement Management for Importers course, here to learn how to make more effective purchases of wheat, corn, soybeans, barley and other commodities in the U.S. grain marketing system.

Robert Welton



Voorhees

Norm Voorhees reappointed to DSPA board

GREAT REPUBLIC

The Duluth City Council has reappointed Norm Voorhees to a second six-year term on the Duluth Seaway Port Authority Board. This continues a strong labor voice at the table as market development representative for Iron Workers Local 512. Voorhees has been a union member since 1987 and moved into an administrative role in 2002. He handles contract negotiations, trust funds, apprenticeship training and organizing efforts. He and his family live in Gary-New Duluth.

The Great Republic has made dozens of transits every year carrying stone, coal and iron ore across the Great Lakes. On Aug. 22, for the first time since joining the Great Lakes Fleet in the spring of 2011, she loaded coal at the Superior Midwest Energy Terminal – 17,477 short tons to be exact – downbound for Filer City, Mich.

Corrosion research protects the Port, wins national award

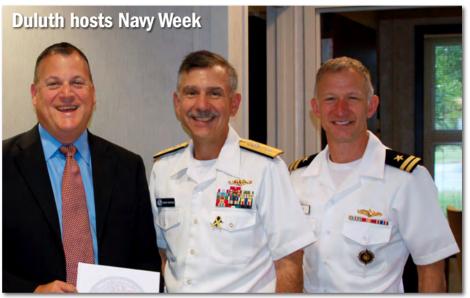
The Wisconsin and Minnesota Sea Grant programs won the prestigious Research to Application Award at a recent biennial national conference. For a decade, the programs have been working with partners including port managers, U.S. Army Corps of Engineers, U.S. Navy and researchers at universities to discover the cause of, and mitigation strategies for, an accelerated rate of corrosion of the infrastructure in the Port of Duluth-Superior.

Research led to the finding that ironoxidizing microbial biofilms adhere to harbor infrastructure in communities known as tubercles. Once scoured by winter ice, these tubercles can open and attract dissolved copper, which pits and weakens steel structures in the Port.

Now, specially devised coatings and protective jackets are being applied to structures to prolong their lives. In fact, other Lake Superior areas are witnessing similar unexpected corrosion and are benefiting from Sea Grant research findings. In addition to National Oceanic and Atmospheric Administration Sea Grant staff, core team members include:

- Dave Bowman, U.S. Army Corps of Engineers, Detroit
- Steven Brossart, U.S. Army Corps of Engineers, Detroit
- Dr. Randall Hicks, University of Minnesota Duluth
- Dr. Brenda Little, Naval Research Laboratory
- Chad Scott, AMI Consulting Engineers
- Jason Serck, Superior port director
- Jim Sharrow, Duluth Seaway Port Authority

The national award competition was open to 33 Sea Grant programs and attracted entries from nine states. The award ceremony was held in Clearwater Beach, Fla., in early September.



During Navy Week in Duluth in August, Rear Adm. David Duryea (center) shared maritime stories with Port Authority Executive Director Vanta Coda and Lt. Cmdr. Roger Reinert.

Mutual interests link Minnesota Agri-Growth Council and the Port

Agriculture is the second largest industry in Minnesota, and ag exports are on the rise. Perry Aasness, executive director of the Minnesota Agri-Growth Council, stressed the importance of Minnesota's agricultural industry at a recent meeting of the Duluth Seaway Port Authority Board. The Port Authority is a member of the Council, a nonprofit, non-partisan organization that advocates for the state's food and agricultural community to foster long-term sustainability, competiveness and growth.

Aasness has held the organization's top position since July 2013 and was invited to help the Port Authority better understand Minnesota's agricultural industry and its role in global markets. He noted that Minnesota ranks fourth in U.S. agricultural exports, serving key markets in Asia, Canada and Mexico. Because the state produces more than it can consume, access to markets is critical and "the Port of Duluth-Superior is an asset to agriculture," Aasness said.



Duluth Seaway Port Authority Commissioner/Treasurer Cal Larson (left) with Minnesota Agri-Growth Council Executive Director Perry Aasness.

Invasive species conference draws a big crowd

Nearly 700 people gathered in Duluth on Oct. 20-24 for the Upper Midwest Invasive Species Conference. The conference included a panel discussion on ballast water and maritime issues, featuring Dale Bergeron of Minnesota Sea Grant, Craig Middlebrook of the St. Lawrence Seaway Development Corporation and Adele Yorde of the Duluth Seaway Port Authority. The biennial conference is designed to strengthen the region's ability to manage aquatic and terrestrial invasive species. The Port Authority was a Prevention sponsor at this year's event.

Sea Grant's Jensen honored

Minnesota Sea Grant's Aquatic Invasive Species Program Coordinator Doug Jensen was presented the first-ever Stop Aquatic Hitchhikers! Achievement Award from Wildlife Forever at the Upper Midwest Invasive Species Conference. Jensen was described as a person who "has left a lasting mark on invasive species prevention here in Minnesota and far beyond. His passion for outreach and education has been instrumental in creating policy, programs and partnerships throughout the country. His understanding of science and people has been invaluable in making Minnesota a leading state for aquatic invasive species prevention." Jensen has been with the University of Minnesota Sea Grant Program for over 21 years.



Courtesy

Doug Jensen (left) receives achievement award for aquatic invasive species work.

Need a lift ... to Panama?

As a port authority, we spend a great deal of time promoting waterborne commerce across the Great Lakes-Seaway. Yet, this Port is a multi-modal hub, and the vast majority of cargo that moves in and out of Duluth-Superior is handled by truck and rail. In fact, here at the Clure Public Marine Terminal the Port's only general cargo facility - well over 90 perecent of our cargoes move via landside transport.

It's those railway and highway freight corridors that connect this Port to an even broader cross-section of customers and countries. In September, for example, crews at Lake Superior Warehousing Co. loaded a 40-foot container with equipment manufactured by LiftPRO here in Duluth.

Lifting beam sections, soft rigging (wire rope and nylon slings, polyester round slings) and protective blade socks were carefully packed into a single container, which was then loaded onto a railcar headed to the Gulf where it would be transloaded for final delivery to Panama.

This specific container left Duluth on Sept. 12 and was expected on the job site in Panama in early October. There, components were to be assembled and used to erect wind turbines at a project under construction by Goldwind, a Chinese wind energy developer. The company manufactures and erects wind turbines here in the U.S. and around the world. LiftPRO has supplied rigging for several Goldwind projects including those in Illinois, Montana, Vermont, New Hampshire and Chile; this is the second to Panama.



The lifting beam and rigging at work here are what distinguish Duluth's LiftPRO.

"We chose to use the Port of Duluth because we have a long-standing relationship with them and a very high trust level," said Lucy Lewandowski, LiftPRO president.

LiftPRO International, Inc., custom fabricates lifting, weighing and rigging devices for manufacturing, materials handling, transportation and government applications. LiftPRO has been in business for over 30 years. Today, nearly two dozen employees manufacture components at its Duluth facility on Seville Road; additional associates work in sales from the company's St. Paul office. www.liftpro.com

Duluth Sail and Power Squadron Hails 75th

The Duluth Sail and Power Squadron celebrated its 75th anniversary along with the 100th anniversary of the U.S. Power Squadrons (USPS) during its District 10 Summer Rendezvous, July 18-20. The weekend's activities included a guided tour of the Lake Superior Maritime Visitor Center, a harbor excursion aboard the retired 180-foot icebreaker U.S. Coast Guard Cutter Sundew, tours of Heritage Marine's tugboats, and many other events. The Duluth Sail and Power Squadron is a local unit of USPS, which has about 45,000 members nationwide. Members promote boating safety through public and member education and vessel safety checks.





The North Dakota and Kentucky are towed out of Port by the Missouri.

G Tugs shuffle the fleet

Great Lakes Towing shuffled its fleet in October. The four G Tugs based in Duluth until then were the North Dakota, Minnesota, Kentucky and North Carolina. At about noon on the 19th the tug Missouri arrived in Duluth with fleetmates Indiana and Arkansas in tow. All three docked in Great Lakes Towing's slip. Then on the 20th, the Missouri departed Duluth, taking with her the North Dakota and Kentucky.

The company explained that the North Dakota and Kentucky would be towed to the Soo and put in dry dock for maintenance. The tug Minnesota will also be replaced before winter sets in. The tug North Carolina will remain in Duluth and will be the first tug out when icebreaking is needed.

Historic water levels on the Lakes

This has been an unusual autumn for water levels on the Upper Great Lakes. For just the eighth time in almost a century, water levels in Lakes Michigan and Huron continued to rise well into October.

This normally is when the Great Lakes begin to fall because evaporation is greater than precipitation and runoff from rivers and streams. Lakes Michigan and Huron usually reach their high levels in July, and Lake Superior a little later.

The level of Lake Superior showed absolutely no change through Oct. 31. On that date, Lake Superior was still 7 inches above its long-term monthly average and 11 inches higher than where it stood in 2013.

Lakes Michigan and Huron actually rose an inch in October and at month's end were 4 inches above average and 22 inches higher than last year. That allows a 1,000-foot ship to load about 5,500 more tons of cargo on each trip.

Lake levels are important for shipping as well as recreational boating. The rising levels have eased concerns about below-normal levels, which had lingered for the past decade.

Duluth to host Shipmasters in '15



The International Shipmasters Association will hold its 2015 national convention on Feb. 5-7, 2015, in Duluth. Twin Ports Lodge 12 will host the event. It will include meetings, planning sessions, seminars, workshops and social events. The Shipmasters Association represents professional mariners and others associated with the vessel industry. The organization advocates for members in matters related to navigation and safety on the Great Lakes St. Lawrence Seaway System. The fund-raising part of the event will include a drawing for a Great Lakes voyage for four on an Interlake Steamship Company vessel later in the year. www.freightertrip.com

Port Passings

Capt. Liel Osell, 94, De Pere, Wis., died July 14, 2014, at his home. He was a member of the Green Bay Shipmasters and was active as a tug captain well into his 80s. Capt. Osell was born in Duluth and first went to work on the Great Lakes in 1940 at the age of 19 for the Interlake Steamship Company. After sailing the Pacific for the U.S. War Shipping Administration from 1943 to 1948, he returned to Duluth and went to work for the Great Lakes Towing Company, serving two years as a deckhand/fireman and then eight years as captain. This was followed by 10 years sailing as captain for C. Reiss Coal & Steamship Co. on Lake Michigan. He went on to captain car ferries for the Ann Arbor Railroad and then worked aboard tankers for The Standard Oil Co. and ore freighters for Bethlehem Steel Co., Interlake and Cleveland-Cliffs. He returned to ocean sailing from 1980 to 1985, and then returned to tug duties for Great Lakes Towing in the company's consolidated ports of Milwaukee and Green Bay. Capt. Osell is survived by his wife of 65 years, Elizabeth Louise "Bonny Lou" Osell, two adult children and two grandchildren.

Norman B. Camenker, 90, Lake Nebagamon, Wis., died Aug. 30, 2014, at his residence. He graduated from Duluth Central High School in 1942 and attended the University of Minnesota before leaving to join the Army Air Corps in World War II. Following his service in the war, he returned to the Twin Ports. He was best known in the Port community for founding the Duluth Superior Ship Chandlery, a business that prospered for many years after the Seaway opened to service oceangoing ships and Great Lakes freighters, as well. He is survived by his wife, Dona; three sons; eight grandchildren; and a sister.

Robert M. Braaten, 71, Two Harbors, Minn., died Sept. 13, 2014, at Ecumen Scenic Shores. He grew up on a family farm in Neillsville, Wis., and attended North Dakota State University. He was employed as a boat loader for Reserve Mining Company and later Cyprus Mining and North Shore Mining, retiring in 2002. He is survived by his wife, Joyce; a daughter; two sons; two grandchildren; and his first great grandchild.

Thomas 0. Ojard, 86, Hermantown, Minn., died Sept. 14, 2014, at his residence. His passion in life was sailing on the Great Lakes. He was employed by U. S. Steel and the Great Lakes Pilots Association. While sailing, he met many friends and enjoyed playing Scrabble and cribbage. He is survived by his wife, Julia; three stepchildren; three grandchildren; and three great grandchildren.

Roy J. Tanner, 98, Duluth, died Sept. 16, 2014. A Duluth native, he graduated from Morgan Park High School in 1934 and earned his degree from Duluth Business University. He was employed by the U.S. Army Corps of Engineers in Duluth for 36 years, retiring in 1973 as administrative officer. For many years, including post-retirement, he kept meticulous records of Duluth-Superior's waterborne commerce and made monthly reports to the Port Authority. He was preceded in death by his wife, Alda Tanner; and is survived by two daughters; a son; seven grandchildren; and 16 great grandchildren.

Steven P. Shepard, 45, Chanhassen, Minn., died unexpectedly on Oct. 3, 2014. He was a senior sales representative, project logistics, for C.H. Robinson, one of the world's largest third party logistics providers. He handled logistics on several project cargo shipments through the Port of Duluth, working closely with the Port Authority and Lake Superior Warehousing Co. He is survived by his wife, Marnee; two children; his father; a brother; his in-laws; and four nieces and nephews.

Mike Simonson, 57, longtime reporter, teacher, KUWS-FM news director and Superior Bureau chief for Wisconsin Public Radio, died in his sleep on Oct. 5, 2014, at his Duluth home. He was born in Duluth and graduated from Denfeld High School in 1975. He started his radio news career in Duluth before moving on to stations in Georgia and North Carolina. In 1990, he returned to the Twin Ports as the first Northern Bureau correspondent for Wisconsin Public Radio's KUWS-FM in Superior. He also taught journalism at UW-Superior and was remembered fondly as a mentor for young reporters. This Port community and the Great Lakes maritime industry lost a great storyteller when Mike's voice fell silent. He is survived by his wife, Jennifer; a brother; a sister; two nieces; and a nephew.

Andrew Francis Rajner Sr., 89, whose three decades of sailing the Great Lakes included a voyage aboard the *Edmund Fitzgerald* just before she sank in Lake Superior in 1975, and who testified at a Coast Guard inquiry into the disaster, died on Oct. 23 at Kingston of Perrysburg. All of his 30 years on the Lakes were with Oglebay Norton, 12 of them as captain. He left high school in 1942 at age 16 to serve as a deckhand and, within a year, joined the Merchant Marine in the Pacific. His post-war service in the Merchant Marine included sailing to Europe to repatriate German and Italian prisoners of war and bringing U.S. servicemen back home.

Energy frontier: LNG as an alternative fuel

The U.S. Maritime Administration (MARAD) has awarded the Great Lakes Maritime Research Institute (GLMRI) \$400,000 for continuing research into the viable use of liquefied natural gas (LNG) by vessels in the Great Lakes.

"We are pleased to expand upon our research into developing improved emissions alternatives for shipping and other industries in the region," said Carol Wolosz, GLMRI executive director. "MARAD is committed to supporting the Great Lakes and regional shipping industries by providing GLMRI with resources to explore the development of the natural gas supply chain and provide educational workshops and other outreach materials."

GLMRI has been studying the LNG supply chain and its potential as a marine fuel since 2011 and has hosted several meetings on the topic. Its May 2014 meeting drew potential users from mining, agricultural, trucking, rail and maritime sectors along with LNG equipment and development companies and elected officials from around the Great Lakes.

LNG's environmental benefits, cost advantages and availability from robust domestic natural gas reserves make it an attractive transportation fuel, and many believe the Twin Ports area would be an ideal location for an LNG liquefaction plant on the Great Lakes - not only for waterway transits but also for landside transportation and mining applications.

"Our strategic location at the western tip of the Great Lakes St. Lawrence Seaway makes the Port of Duluth-Superior well positioned for an LNG plant, and leading energy industry developers have expressed interest," said Brian Hanson, president and chief executive officer of APEX, a regional private-sector-led business development organization.

One of the companies exploring the Great Lakes is WesPac Midstream, LLC. Its director of business development, Stacey Phillips, told participants at the May

meeting that WesPac has identified several potential development sites in and around the Great Lakes region, with Duluth-Superior emerging as a top choice. In October, representatives of the Duluth Seaway Port Authority and APEX attended the 2014 High Horsepower Summit in New Orleans, where they met with major energy industry developers as well as key manufacturers in the LNG supply chain.

The burning question for ship owners has been where to get the LNG. In an Oct. 24 article in Maritime Executive, it was announced that Clean Marine Energy (CME), a global facilitator of finance mechanisms for LNG conversions, has partnered with WesPac Midstream to offer an Emissions Compliance Service Agreement that provides both the funding required for LNG conversion of ships and the construction of the infrastructure for LNG supply and delivery.

In that same story, it was reported that CME already has one project under way: the conversion to duel fuel of the CAT 3612 engine in the Joyce VanEnkevort/Great Lakes Trader tug/barge. Company officials anticipate having that conversion completed by fall 2015.

Meanwhile, Interlake Steamship Company continues to explore LNG as a fuel



Once fitted out with tanks for LNG fuel, Interlake's Mesabi Miner would look like this.

for its fleet. The company has invested significant time and resources into its LNG program and has undertaken significant engineering. Interlake is comfortable with the technology and confident that its vessels can be converted.

President Mark W. Barker said that Interlake had worked diligently in an effort to begin using LNG in the spring of 2016, but has not yet begun the costly conversion of any of its nine ships from heavy oil because the Great Lakes lack the infrastructure to ensure a reliable supply of strategic fueling locations. The company continues to meet with potential suppliers to discuss how a delivery system can be developed to best serve Great Lakes vessel operators.

"We are optimistic that LNG has a place as a marine fuel, and we remain committed to working with manufacturers and suppliers to develop an LNG solution for the Great Lakes," said Barker. "Marine is already the most environmentally sound transportation mode on a ton-per-mile basis. LNG, which is even a cleaner burning fuel, would make it that much better, particularly in light of stricter air quality standards set by the North American Emission Control Area."





1200 Port Terminal Drive Duluth, Minnesota USA 55802-2609 www.duluthport.com

ADDRESS SERVICE REQUESTED

PRSRT STD US POSTAGE PAID DULUTH, MN PERMIT NO. 492

