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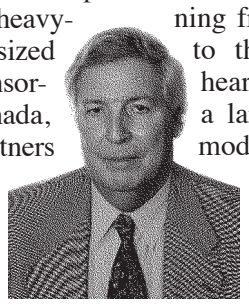
# Large heavy haul consortium created in Eastern Canada

By Leo Ryan, AJOT



April marked the start-up of one of the largest heavy-hauling and oversized transportation consortiums in Eastern Canada, with all three partners based in or within close proximity to the St. Lawrence shipping corridor.

Quebec Stevedoring Limited (QSL), Groupe Robert (Watson and Sycamore) and Express Mondor marked a milestone in their development with the recent signing of an agreement to create Mondor-Watson, which targets markets in both the United States and Canada.

The three prominent enterprises in Canada's Quebec province set the stage to consolidate their strategic positioning, accelerate their growth and enhance the range of services offered to their clients. Based in Quebec City, QSL is the majority shareholder of the new entity, while Mondor's team runs daily operations.

Groupe Robert, which has 3,500 employees, remains a shareholder in the new consortium where it will play an important role through its expertise in transportation and logistics along with the many synergies with the rest of its network. Among other things, Groupe Robert has a big trucking fleet of 3,200 trailers that delivers containers to and from the Port of Montreal.

Rosario Robert founded Robert Transportation near Montreal in 1946. Today, the third generation of the Robert family is at the helm. As a Canadian and U.S.-bonded carrier, the company seamlessly transfers goods from one customs-bonded warehouse to another.

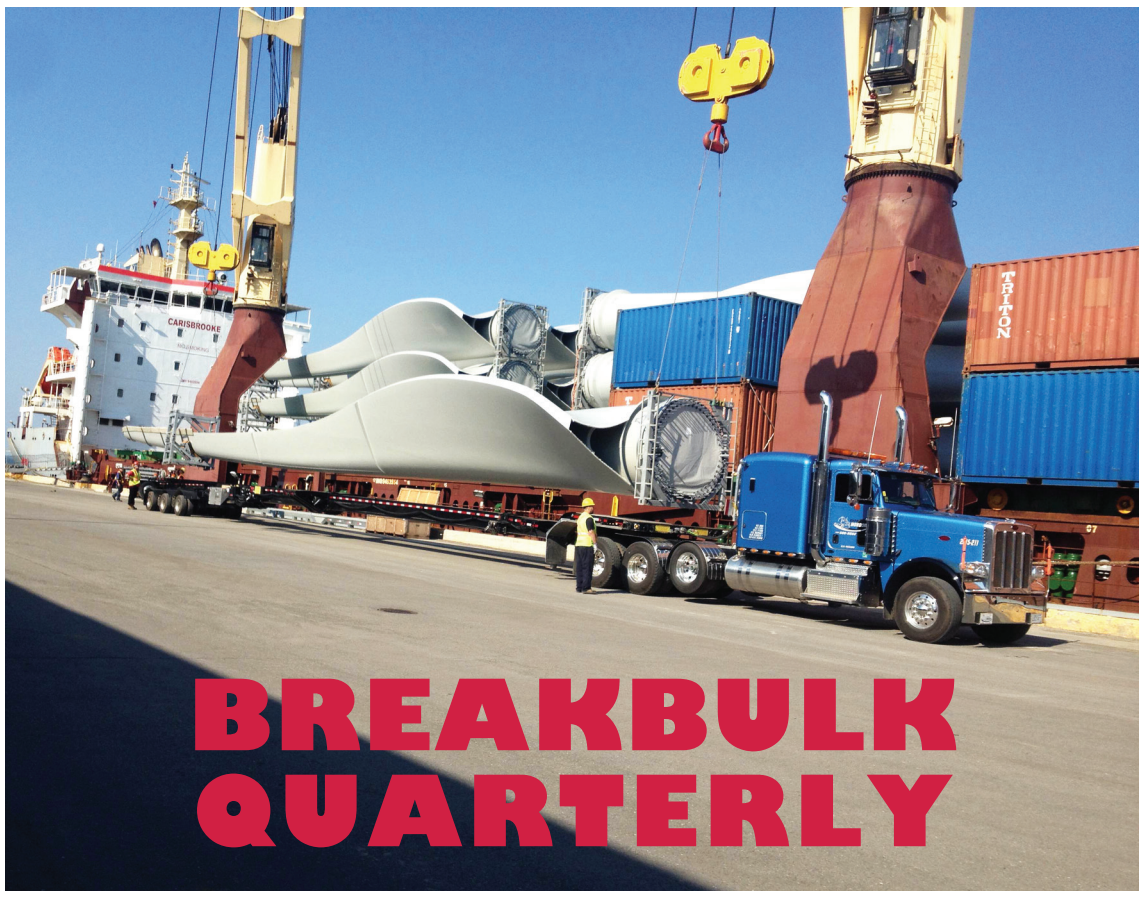
"At QSL, our vision is clear: to become the North American industry benchmark by supporting the success of our clients, actively participating in the growth of the Canadian and American import and export markets, and making a difference in our communities," said Robert Bellisle, president and CEO.

Now in its 40th year, QSL operates an extensive stevedoring network spanning from Eastern Canada to the North American heartland and handling a large variety of commodities such as dry bulk, steel, forest products, breakbulk and project cargoes. Its cargo-handling operations cover some 30 ports, including 16 in Quebec, four in Ontario, and facilities in Chicago, Ill. and Ogdensburg, NY.

In an interview with the St. Lawrence Economic Council (SODES), Bellisle observed: "Our clients' needs have evolved, requiring us

*(CONSORTIUM – continued on page 15)*

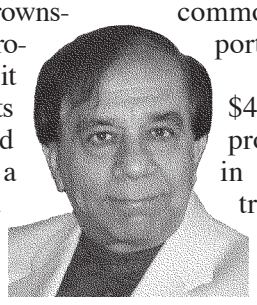
QSL's Robert Bellisle stresses role of intermodality as "key to success for the future" Photo credit: QSL




Direct unloading onto truck of windmill blades at Gros-Cacouna on St. Lawrence River. Photo credit: Express Mondor

# Port of Brownsville positions itself as a "gateway" to Mexico and Latin America

By Manik Mehta, AJOT



The mood at the "gateway" to Mexico and Latin America, as Port of Brownsville (PoB) likes to profile itself, is upbeat as it tries to implement its expansion plans, aided by the prospect of a number of big-ticket projects being set up on its land.

Arkansas-based Big River Steel has cast its gaze on PoB as the site for a steel mill which, according to PoB sources, will entail a $ 1.6 billion cost for construction.

Indeed, according to the speculation in the steel industry, Big River Steel is expected to send representatives to Brownsville before the end of this summer to discuss its plans in details.

PoB and Big River Steel signed an option agreement covering up to 800 acres of property enabling the steelmaker to continue its due diligence pursuant to the company's interest in developing a steel manufacturing plant, storage and distribution facility.

PoB, the only deep-water seaport directly on the U.S.-Mexico border, and the largest land-owning public port authority in the nation with 40,000 acres of land, transships more steel to Mexico than any other U.S. port. Mexico is arguably Latin America's most dynamic economy, and has overtaken Brazil as the region's largest steel consumer.

"In 2017, the Port of Brownsville moved 10.6 million tons of cargo. The port's Foreign Trade Zone No. 62 is currently ranked second in the nation for the value of exports, reporting more than $2.8 billion in exported goods in 2016," said Steve Tyndall, the port's senior director (marketing and business development) in an interview with the *American Journal of Transportation* at the recent Steel Success Strategies-XXXIII conference in New York.

Indeed, steel is a major commodity moved by the port.

With more than $43 billion worth of projects currently in the works, PoB is transforming the Rio Grande Valley by providing what Tyndall called "positive investment opportunities" and creating jobs. Activity at the port would provide an additional $2 billion impetus to the region's economy, $3 billion to the Texan economy, and create more than 44,000 jobs.

*(**GATEWAY** – continued on page 7)*

Steve Tyndall, Port of Brownsville's senior director

The Port of Brownsville, the only deep-water seaport directly on the U.S.-Mexico border, is the largest land-owning public port authority in the nation with 40,000 acres of land.

# Section 232 loomed large at New York Steel Conference

***While U.S. steelmakers applauded the steel tariffs, there were many who saw the "age of protectionism" descending on America. Global trade could suffer collateral damage.***

By Manik Mehta, AJOT

The three–day Steel Success Strategies conference – this was the 33rd edition – held in the last week of June in New York was a stark reminder of the pain that U.S. steel consuming industries were feeling as the Trump administration imposed steel and aluminum tariffs under Section 232 of the Trade Expansion Act.

Not many Americans had heard before of the use of Section 232 for imposing tariffs. Section 232 was, in fact, previously invoked in connection with imports of items such as machine tools, uranium and ceramic semiconductor packaging. The Nixon and Ford administrations resorted to using Section 232 in response to oil imports; these actions were, however, challenged in federal court. However, Section 232 is rarely used; before the Trump administration decided to use it, the most recent action taken under Section 232 was against iron ore and semi-finished steel in 2001.

### Debating 232

Because of its global impact, Section 232 was also hotly debated at the conference – fetching reactions from both supporters and opponents. While U.S. steelmakers were satisfied with the tariff imposition, saying they could now have a "level-playing field" in America, steel consumers and foreign suppliers predicted global trade disruptions.

For one, there was widespread fear that tariffs would push steel prices upwards in the U.S. "In the end, it is the American consumer who will pay more for everything that contains steel or aluminum," a Mexico businessman, who insisted on remaining anonymous, said.

Many U.S. steelmakers had not, at the time of the conference, factored the impact of tariffs on imports from Canada, a partner in the North American Free Trade Agreement (NAFTA), into their pricing or strategies because they were not "fully convinced" that the tariff will remain in force for long.

Some delegates at the conference, in private conversations, speculated that U.S. President Donald Trump was either using the 25% steel tariff against Canada and Mexico as a "bargaining chip" to extract maximum concessions from them or just wanted to get both partners out of the NAFTA and enter into bilateral agreements. Trump would be tough on Mexico, but there was no long-term justification to continue the tariffs on Canadian steel products.

Indeed, some Canadian suppliers are even willing, according to some conference

*(**LOOMED** – continued on page 5)*

# Policy "unpredictability" a big issue for break carriers

By Matt Miller, AJOT

The Trump administration's assault on global trade is rattling everyone up and down the supply chain. Shipping lines can easily get caught in the middle. They are scrambling to figure out how to respond long-term to an unsettled environment that can change in an instant with a tweet or a press conference.

In an email exchange, Benjamin Joithe, director, global sales and marketing, for Rickmers-Line GmbH & Co., addressed this uncertainty. "The biggest issue for a carrier such as Rickmers-Line is the unpredictability of the current administration," he wrote. "Policy changes are often erratic and makes it very cumbersome to plan tonnage allocation for the years ahead."

Rickmers-Line is a break bulk and heavy lift project cargo specialist carrier. The Zeaborn Group has owned the line's vessels since 2017. Joithe is based in Shanghai.

According to Joithe, the imposition in March of a 25% tariff by the Trump administration on Chinese steel has already caused some disruption, especially the production of cold-rolled steel. However, he said, many Chinese steel mills are state-owned enterprises and are absorbing some of the additional costs. What's more, some Chinese steel products are highly customized and can't be easily replaced. "China makes up only about 4% of US steel imports and it appears that China is unjustly vilified," Joithe said.

When asked, Joithe said that Rickmers-Line has no plans to alter its biweekly service from Asia to the US, a route that has been operating for more than 15 years. While it moves steel across the Pacific, Rickmers-Line isn't dependent on that cargo to keep its 30,000 dwt ships steaming. "Steel is unlikely to completely disappear for that trade route and if volumes drop, you can complement this with other high density/heavy cargos."

*(**UNPREDICTABILITY** – continued on page 15)*

*(**LOOMED** – continued from page 4)*

delegates, that they would consider paying the tariff on behalf of its U.S. customers.

John Ferriola, CEO and chairman of Nucor Corporation, whose key-note address attracted a packed auditorium, said that U.S. steel industry is thriving in a strong economy. "This is an amazing time. The world steel forecast suggests that steel demand will grow; this year's demand will grow by 2%. We have invested billions of dollars over the past years. We can now benefit from this surge," Ferriola told the delegates.

2017 was Nucor's best year, he noted. The first quarter 2018 got off well. "It's a good time to make steel."

Ferriola recommended the steel industry to follow three principles while planning for the future: move up the value chain, acquire assets that complement the business and expand into under-served markets.

Apparently alluding to China, which has been criticized by the steel industry for its overcapacity that ends up in the U.S. market, Ferriola said: "The worst offenders have promised to rein in their overcapacity, but there is no result. Finally, we are addressing issues like subsidies that lead to overcapacities. America has stopped asking nicely to comply with the rules of world trade."

While NAFTA had been successful for steel in the U.S., Canada and Mexico, the "24-year old agreement needs modernizing in terms of rules of origin, trade-law enforcement and treatment of state-owned enterprises". "NAFTA should be updated for a 21st century global economy," Ferriola said, adding that the "new and improved NAFTA will be all future free trade agreements".

### Geography of steel

While pricing would be a key factor affecting U.S. buyers of Canadian and Mexican products, it will also depend on the geographical location of the supplying source. For a buyer in northeastern U.S., suppliers in eastern Canada would be closer than, for example, in southern U.S. The costs will also be affected by freight charged on such shipments.

In their joint presentation called "Who will emerge from the wreckage?", Peter F. Marcus, the managing partner of World Steel Dynamics (WSD), joined by Philipp G. Englin, the company's CEO, predicted that "we are going to see lesser volumes and an improvement in steel quality, for example, for the automobile industry".

According to a WSD paper titled "Steel's Moneyed World", steel's new "age of protectionism" had dawned in the third quarter of 2016, heralded by the success of trade suits filed against Chinese steel mills and others elsewhere.

Peter F. Marcus, managing partner of World Steel Dynamics

Besides China, India was also discussed at the conference, with Sanjay Jayram, Executive Vice President (Sales & Marketing) at Indian steelmaker JSW Steel Ltd, presenting what he termed the "India story". Juggling with

*(**LOOMED** – continued on page 15)*

# Trump's tariffs: the supply chain disrupter

***Measures likely to confound producers worldwide.***

By Peter Buxbaum, AJOT

### Tariff Saga

Canada hit United States steel imports with a 25% tariff at the beginning of this month, in retaliation for similar measures imposed by the Trump administration on imports from its North American neighbor. That's when President Donald Trump lifted the exemptions granted to Canada and Mexico from the 25% tariff on steel imports and a 10% tariff on aluminum imports he imposed on the rest of the world beginning on March 23. The European Union, South Korea, Argentina, Australia, and Brazil were at first granted temporary exemptions, but those too have been lifted, expect for exemptions on aluminum imports from Argentina and Australia.

More recently it's been reported that Canada plans on taking yet another step, by starting a global safeguard inquiry to protect the Canadian steel industry. Experts note that as long as Canada abides by World Trade Organization Agreement on Safeguards, it is permitted to assist domestic producers that are threatened by serious injury from increased levels of fairly traded imports. It's not necessary for imports to have been dumped or subsidized for Canada to implement safeguards.

According to a report released by the Ottawa law firm of Tereposky & DeRose, the Canadian International Trade Tribunal (CITT) could conduct an inquiry to determine if increased imports of goods into Canada are causing or are threatening to cause serious injury to domestic producers of competitive goods. If the CITT makes an affirmative finding, the Canadian government can apply safeguard measures.

That's just the latest in the continuing saga of the unfolding trade war began by Trump, a conflagration which promises to wreak havoc on global supply chains for steel and aluminum.

Business Forward, a national business organization, created the index to track how steel tariffs are impacting U.S. manufacturers competing with manufacturers in countries like the UK, Italy, China, Germany, and Japan. The study shows that U.S. steel prices are on the rise, and have been for some months.

"Steel prices in the U.S. began rising when Trump started talking about tariffs eleven months ago, and they took off last quarter when he announced them," explained Jim Doyle, president of Business Forward. Since February, U.S. steel prices have increased 19%.

"If steel represented 20% of your cost of production in February, and your profit margin was 10%, these price increases wiped out more than a third of your profit," explained Doyle. "You're left absorbing the loss, raising prices, or laying-off employees."

Rising prices are particularly hard on manufacturers that export. "Price increases in the U.S. are just half the story," explained Doyle. "Tariffs here cause surplus steel to flow to Europe, Asia, Canada, and Mexico, which drives their prices down." Predictably, steel prices in the UK, Italy, China, Germany, and Japan dropped three percent on average since February.

In June, U.S. manufacturers' price disadvantage on steel grew to an average of 22.2%. The difference between prices here and in the other markets studied has more than doubled since February.

The tariffs are likely to hit U.S. manufacturers hard, given that imports made up 60% of aluminum and one-third of the steel used by American businesses in

*(**DISRUPTER** – continued on page 13)*

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### Proposed LNG Facility

Another important development for the PoB is the Texas LNG's proposed liquefied natural gas project at the port. Texas LNG, which had been waiting for approval from the Federal Energy Regulatory Commission, announced end June that it had received letters from the U.S. Coast Guard, the U.S. Department of Defense and the U.S. Department of Transportation Pipeline and Hazardous Safety Administration, thus paving the way for the project's progress.

Texas LNG described the letters as "important milestones" for the project and required for the FERC approval process. The company said full approval and a "final investment decision" on whether to build the terminal, which would liquefy and ship domestic natural gas to foreign buyers, is expected in 2019. Texas LNG, which anticipates first-phase production of 2 million tons a year to begin in 2023, has secured long-term offtake term sheets from LNG buyers in China, Southeast Asia and Europe.

Then there is the $1.5 billion Valley Crossing Pipeline project. In June 2016, Valley Crossing Pipeline, LLC, was awarded the 168-mile intrastate gas pipeline project by the Comisión Federal de Electricidad (CFE)—Mexico's state-owned utility serving 37 million customers—to provide natural gas transportation services to meet Mexico's growing electric generation needs, and other shippers in South Texas. The US Federal Energy Regulatory Commission has authorized construction of Valley Crossing Pipeline's 2.6-Bcf/d Border Crossing project for natural gas delivery to Mexico.

"All three projects … the Big River Steel, the Texas LNG and the Valley Crossing Pipeline will be built on the Port's land," Tyndal said.

### Dredging

Tyndall also confirmed that PoB had, meanwhile, received authorization from the U.S. Congress to carry out dredging work that will increase the depth of the port from its present level of 42 feet to 52 feet. The dredging work is expected to start in five years; the entire dredging project should be completed by 2025.

The growing trend of larger ships in the international maritime fleet is influencing big changes in shipping industry's infrastructure, necessitating expansion as in the case of the Panama Canal and enhanced port infrastructure around the world. PoB received on January 31, 2018 the M/V Nordic Pollux, the largest cargo vessel to call at the port to date.

The huge oil tanker made its way from Philadelphia to Brownsville where it loaded approximately 150,000 barrels of heavy naphtha.

Completion of the port's channel deepening project will allow it to accommodate deeper draft cargo ships, making visits by ships like the Nordic Pollux a more common sight. Bigger ships are seen as a source of larger cargo volumes and, consequently, also as a source of more jobs for moving cargo onto and off the giant vessels.

Like other ports, PoB is also pursuing further development of its foreign trade zone which is the nation's second biggest FTZ after the one in South Carolina. Tyndal said that all the projects, excepting the one involving dredging, will be under way in 24 months, adding that "never before have there been projects of such scale".

### Trade debate

Since it handles a large volume of steel, PoB Is also closely monitoring the ongoing national debate on steel and aluminum tariffs on imports.

"We are concerned about it (the imposition of steel and aluminum tariffs). If the tariffs go into effect, it will change the pricing of steel although that will not affect the efficiency of our port or the superior logistics platform we have built. We move more steel into Mexico than any other port. Despite the apprehensions and doubts of many, we are going to see more traffic and not less," Tyndal said, adding that "new avenues of opportunities" would open up.

PoB's senior director

*(**GATEWAY** – continued on page 12)*

# BBC Chartering launches new service connecting the Persian Gulf and India with Australia

BBC Chartering announces the launch of a new monthly service between the Persian Gulf, India and Australia. The connection is first served by the *M/V BBC Brisbane* which is currently already on her way loading in Mumbai, Port Chennai and Port Kelang. She is scheduled to arrive in Brisbane in the first week of August.

With fixed monthly eastbound sailings, the new connection is the only service in the market which offers shippers of project and heavy lift cargo a most reliable and competitive frequent shipping solution to Australia. The capacity operates under BBC Chartering's high-performance liner and semi-liner network for any port, any cargo service and utilizes the full range of multipurpose and heavy lift vessels operated by BBC Chartering.

The service is a major shipping contributor to Queensland's "new generation rollingstock" (NGR) project. As part of this, an agreement was signed to transport new train-coaches and perform 18 consecutive monthly voyages from Mumbai, India to Brisbane, Australia. Svend Andersen, CEO of BBC Chartering stated: "We are pleased that BBC Chartering was selected as carrier of choice to serve this seminal project, convincing all stakeholders of the highest service standards in project shipping."

# The digitalization of block and tackle shipping

***Alexander Varvarenko, managing director of the bulk shipping company Varamar, is bringing digitalization to bulk shipping. The process is new and uncertain waters for a block and tackle industry that still uses words like 'steamship lines' to define its business. But is digitalization the next "Malcolm Maclean" moment in shipping history?***

By Matt Miller, AJOT

A few years back, Alexander Varvarenko, the founder and managing director of a Ukrainian bulk and project cargo ship company called Varamar, was getting increasingly frustrated at the deluge of email requests he was being inundated with: "One day I was going through the 10,000 emails that had come through my email box that day, out of which half are cargo requests I have to analyze," Varvarenko said by telephone from Odessa, where he is based. "I thought to myself, look, this is going nowhere. The amount of information I'm getting is growing, [but] the time I have for analyzing that data is shrinking."

Alexander Varvarenko – managing director, Varamar

Then he had an epiphany: "It has to be possible to teach a computer to do all the email reading and analysis and comparison and finding the right ship for the right cargo instantly."

Varvarenko isn't just a ship company owner; he's a former software developer. His Eureka moment that day led to the founding in 2015 of ShipNext, a digitalized shipping marketplace. Its first offering, launched last October, is a subscription-based service that links non-containerized, ocean-going cargo with potential carriers and ports. To date, Varvarkeno said, ShipNext analyzes about 9,000

*(**DIGITALIZATION** – continued on page 10)*

# Ukraine's Metinvest CEO says Section 232-based steel tariff imposition is not an "ideal solution"

By Manik Mehta, AJOT

Openly airing his views about the controversial Section 232 of the Trade Act, under which the Trump administration has imposed steel and aluminum tariffs on imports, Yuriy Ryzhenkov, the chief executive officer of Ukraine's Metinvest Group, said that Section 232 had resulted in a rise in steel prices.

"We know all about protectionism and trade cases. It (tariff imposition) is not an ideal solution. The real losers are the automobile, constructions and other industries. U.S. manufacturers are moving out of the country. Will Section 232 really make the U.S. great again? This will produce some winners, but it will also produce losers," Ryzhenkov said while addressing delegates at the recent Steel Success Strategies (SSS)-XXXIII conference, jointly sponsored by the American Metal Market and the World Steel Dynamics, in New York. His remarks seemed to repudiate the views of John Ferriola, Nucor's CEO who had earlier, in his keynote address, said that it was a "great time to make steel in the USA".

In an interview with the *American Journal of Transportation* on the sideline of the conference, Ryzhenkov described Section 232 as a "strange approach" to resolving the issue of rising imports. "It looks like a bargaining chip to check trade," he said, adding that the U.S. market should be kept open and that Section 232 was not the appropriate way to limit imports of steel, particularly from allies and close friends.

But the Metinvest CEO also pointed out that the U.S. market was relatively small and despite the tariffs, his company was making supplies to the U.S. "We have, indirectly, benefited from Section 232 because with the rising demand for pig iron, our supplies of this particular item to the U.S. have increased," he maintained. Metinvest has delivered several hundred thousand tonnes of pig iron to the U.S. in 2017. The company's first-quarter 2018 pig iron production surged by 60,000 tonnes driven by the prospect of a receptive market absorbing the increase.

Indeed, as he pointed out, pig-iron prices and volumes shipped from the Ukraine to the U.S. have improved, considering that U.S. mills have been ramping up their steel production to compensate for the decline in imports; this, in turn, has fueled demand for larger volumes of scrap or pig iron. Ryzhenkov maintained that the U.S. would not be able to reach the steel production volumes needed to meet

*(**SOLUTION** – continued on page 14)*

# Next wave of crane deliveries is underway for NIT and VIG

The heavy-load vessel Happy Buccaneer is on berth at Norfolk International Terminals (NIT) with the first group of six rail-mounted gantry cranes (RMGs) that are the centerpieces of the $375 million capacity expansion project underway at that terminal.

The Happy Buccaneer's arrival signals the start of an 18-month cycle that will see the delivery of 60 new cranes to NIT. In January 2018, construction on the NIT expansion got underway and the project will be complete by mid-year 2020. The work will expand NIT's annual throughput capacity by 400,000 container units.

The vessel is safely on berth and pre-offloading work is underway. The RMGs will be off-loaded, mounted on rails, taken through some minor assembly, tested and then put into service by the end of September, when the first three of 30 new container stacks at NIT will be ready for use.

John F. Reinhart, CEO and executive director of the Virginia Port Authority said, "Our goal is to put this equipment to work as quickly and as safely as we can, just like we are doing at VIG. As these stacks go online, we will begin capitalizing on the new capacity and efficiency we're creating. The end result of our effort will be new high-performing network of terminals that will attract economic investment in Virginia and spur job creation across the Commonwealth."

In November 2016, the port finalized a $217 million contract with Konecranes to build and deliver 86 RMGs. Roanoke-based TMEIC is

*(**WAVE** – continued on page 11)*


The heavy-load vessel *Happy Buccaneer* is on berth at Norfolk International Terminals (NIT) with the first group of six rail-mounted gantry cranes.

# Economic impact of Great Lakes shipping is $35 billion per year in US and Canada

New report shows Indiana accounts for over half of U.S. economic activity attributable to Great Lakes shipping.

A new study released by the Great Lakes and St. Lawrence Seaway maritime industry shows Indiana plays a crucial role in cargo shipping on this binational navigation system. Entitled, "Economic Impacts of Maritime Shipping in the Great Lakes St. Lawrence Region," the study was performed by Martin Associates, a leading economic consulting firm specializing in maritime analysis. The study's sponsors include the Saint Lawrence Seaway Development Corporation, the St. Lawrence Seaway Management Corporation, the American Great Lakes Ports Association, the Chamber of Marine Commerce, the Lake Carriers' Association, and the Shipping Federation of Canada.

The Great Lakes St. Lawrence Seaway System is the longest deep-draft waterway in the world spanning 2300 miles from Duluth, Minnesota to the Atlantic Ocean. This commercial waterway serves ports in the eight Great Lakes states and the provinces of Ontario and Quebec. System users include key industries such as steel production, power generation, construction, and agriculture. Located on the south shore of Lake Michigan, the Port of Indiana-Burns Harbor is one of the Great Lakes' busiest international ports and is beginning a $20 million expansion to double the port's capacity for handling bulk commodities.

The Great Lakes shoreline spans more than 4,800 miles in the United States, with only 45 miles of that in Indiana. With less than 1% of the shoreline, Indiana accounts for over half of the U.S. economic activity related to shipping on the Great Lakes. Cargo movements on the Great Lakes generated the following economic impacts in Indiana during 2017:

- Supported 66,158 jobs (nearly 45% of the total U.S. jobs attributable to Great Lakes shipping)
- Created $13.7 billion (USD) in economic activity (53% of U.S. total)
- Generated $4.9 billion (USD) in personal income (47% of U.S. total)

The study analyzed the 2017 navigation system and documents that more than 143 million tons of cargo valued at $15.2 billion were moved on the Great Lakes Seaway system. This cargo created the following economic impacts in the binational region:

- Supported 237,868 jobs
- Created $35 billion (USD) in economic activity ($25.6 billion in U.S. alone)
- Generated $14.2 billion (USD) in personal income
- Paid $6.2 billion in federal/state/local taxes

The study analyses the economic

*(**IMPACT** – continued on page 11)*

# Digitalization of airfreight

***German startup Cargo.One is attempting to digitize the airfreight market with a booking platform linking forwarders to carriers.***

By Matt Miller, AJOT

Shippers who use airfreight obviously put a premium on time, otherwise why would they bother with the added expense? But the process of booking an airfreight cargo carrier is about as clunky as it is with a ship: Freight forwarders sending and receiving numerous email from airlines or general service agents, processing different offers, standardizing terms, making deals. It amounts to hours, if not days, of wasted time.

"We were quite astonished at how this is done," said Oliver Neumann, the founder and managing director of Cargo.One, a Berlin-based startup attempting to digitalize the process. "We saw a [freight-forwarding] process where a young man received an email from some shippers or a company that wants to transport something. 'I have 800 kg of milk powder that needs to go from Frankfurt to Shanghai. Please give me an offer and quick.' This freight forwarder sat down and wrote an email with five or six different airlines and general sales agents in a blind copy," said Neumann whose team spent time with freight forwarders looking at the process. He stressed the irony: "We have a product that's time sensitive and the solution to book this cargo is by sending email and waiting basically to get offers. "Airlines working with forwarders also rely on a lot of manual tasks to bid for work, cutting and pasting quotes on an email. Cargo.One has created a platform that completely automates that booking, linking forwarders to carriers. In June, the year-old company got a major boost when Lufthansa signed up to be on the Cargo.One platform. Neumann won't say when he expects the service to go live, only "hopefully as soon as possible." He said that if the company can attract three or four of the major airfreight carriers in the region, it can inaugurate the service to and from Europe. "Technology can make the process faster, easier, it can decrease cost and it can create structured data in a way that airlines can use it to better forecast demand, but also freight forwarders can use it to make their shipper able to book digitally, Neumann believes.

Airfreight may still be stuck in the non-digital age, but there are many forces at work that will transform this part of logistics, whether forwarders like it or not. In a February paper on the subject, consultancy McKinsey &

*(**AIRFREIGHT** – continued on page 11)*

*(**DIGITALIZATION** – continued from page 8)*

vessels for potential matches with a particular cargo that needs to move by ship from one port to another. "We have about five to seven cargo [requests] coming in every minute. There's quite a lot of data matching every day," he said, likening his service to an Uber-like solution. "We already have a lot of happy customers."

ShipNext subscribers include brokers, freight forwarders, ports and carriers. A subscription runs $1,500 a year.

ShipNext is just one of the many startups attempting to digitalize a part of the supply chain that has been particularly resistant to change. Ocean-borne freight is the slowest kind of transport; booking that freight is also one of the most laborious and technologically backward and least efficient.

## Digitalization

Global manufacturing is hurtling toward what pundits call Industry 4.0. In this stage of economic development, automation combines with the digitalization of all physical assets, that is, reducing them to digits in databases, where they can be checked and analyzed instantly, in real time and from any location. This is often referred to as part of "the Internet of Things."

There are many aspects to this brave new world, including interoperability, where machines can talk to each other and to the people who monitor them, and machine learning, where computer systems can "learn" tasks through algorithms. In the transportation industry, a lot of the buzz is centered on the future of self-driving vehicles, while logistics is agog over fully automated ports and robots picking and transporting goods in warehouses.

One pillar of Industry 4.0 is the ability of systems to assist humans in making decisions. That's where big data comes in.

For logistics, this means the real-time tracking and monitoring of everything from the position of a ship or truck to traffic jams or port congestion, from to the state of individual cargo to the temperature and humidity inside a container. Better information means faster and more accurate delivery, with far less errors and spoilage. Databases today monitor each of the tens of thousands of freight-carrying ships, their exact location and availability for hire.

Contrast all this with today's ocean-vessel booking practices. This is a process that has barely changed from two decades back. A transport manager gets an order to move cargo from, say, Europe to the US. If on his own, that manager must weigh hundreds, if not thousands, of options: These include ship size, capability, reliability, and availability, port of loading, port of discharge, customs clearance, methods and duration of moving the cargo from the factory or warehouse to the port, moving the cargo from the ship to the recipient. All this takes time and usually involves dozens of email and telephone calls that must be responded to. By the time a decision is made, a

*(**DIGITALIZATION** – continued on page 12)*

# Cargo berth construction moves ahead at Port Canaveral

Work is under way on a multi-purpose cargo berth project at Port Canaveral that also will accommodate facilities for the growing commercial space industry.

Scheduled for completion in mid-2019, North Cargo Berth 8 (NCB8) on the Port's north side will provide the infrastructure and capabilities to handle a growing portfolio of heavy and oversized cargo, including commercial spacecraft components. NCB8 is designed and engineered as a multimodal/intermodal berth that will provide flexible capacity and capability to accommodate more diverse commerce at the Port. "With the Port experiencing unprecedented demand for bulkhead space, coupled with rapid economic growth in Central Florida and a burgeoning commercial space industry right here on the Space Coast, North Cargo Berth 8 will ensure we have the ability to meet the increased demand for diversified cargo-handling capabilities, while keeping us well-positioned for the future," Port CEO Captain John Murray stated. Crews from Orion Marine Group of Tampa, Florida, currently are installing 413 concrete relieving piles, each about 90 feet long. Once the piles have been placed, construction will start on a seawall with a concrete cap.The 900-foot seawall and planned 100-foot pier extension will be capable of handling an 850-foot ship. NCB8 will be constructed with a 2,000 lbs.-per-square-foot capacity, a necessary requirement for handling aerospace cargo and other heavy project cargo. The berth will be dredged to a depth of -35 ft (MLLW).

Orion Marine Group was awarded a $17.9 million-dollar contract earlier this year for construction of the bulkhead, seawall, relieving platform and dredging after the Canaveral Port Authority Board of Commissioners unanimously approved construction of NCB8 in January. Site work began in March.

Workers from Orion Marine Group position concrete relieving piles for installation at North Cargo Berth 8

*(**WAVE** – continued from page 9)*

supplying the technology systems that will drive and control the cranes. The contract is the largest one-time RMG order for in industry history.

"We are very pleased with the progress being made at NIT and by 2020, this phase of our expansion will be complete," Reinhart said. "We're building a safe, modern port capable of handling the biggest ships in the Atlantic trade and all of the pieces for success are being assembled.

In June, The Port of Virginia® accepted the last load of 26 new RMGs at Virginia International Gateway (VIG), where $320 million is being invested to expand cargo capacity and operations. The new cranes will support cargo operations in 13 new container stacks.

*(**IMPACT** – continued from page 9)*

impacts of specific navigation infrastructure. The St. Lawrence Seaway consists of a series of canals and 15 navigation locks between Lake Erie and Montreal. This vital waterway connects the Great Lakes to the Atlantic Ocean and enables Great Lakes ports to access global markets. Commerce utilizing the Seaway supported 92,661 jobs in 2017.

Operated by the Army Corps of Engineers, the Soo Locks are located in Sault Ste. Marie, Michigan, and connect Lake Superior to the lower four Great Lakes. Commerce transiting the Soo Locks was responsible for 123,172 jobs in 2017.

*(**AIRFREIGHT** – continued from page 10)*

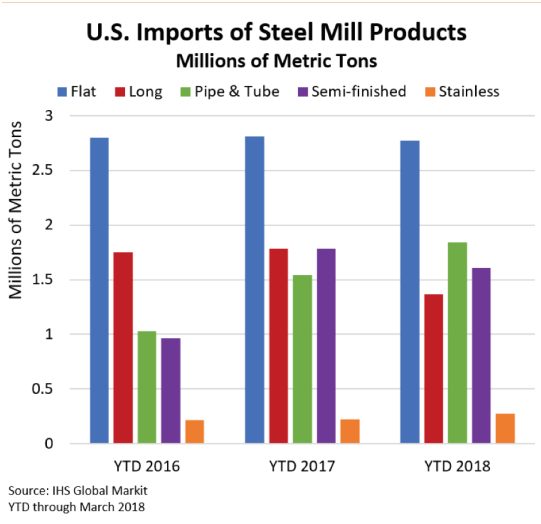
Co. identified three sources that are pressuring traditional airfreight forwarders: digital forwarding specialists offering solutions for "one or two elements of the value chain," digital forwarding specialists competing with traditional forwarders and able to offer "a better customer experience at relatively low cost" and carriers using digital channels to directly serve customers, especially smaller ones.

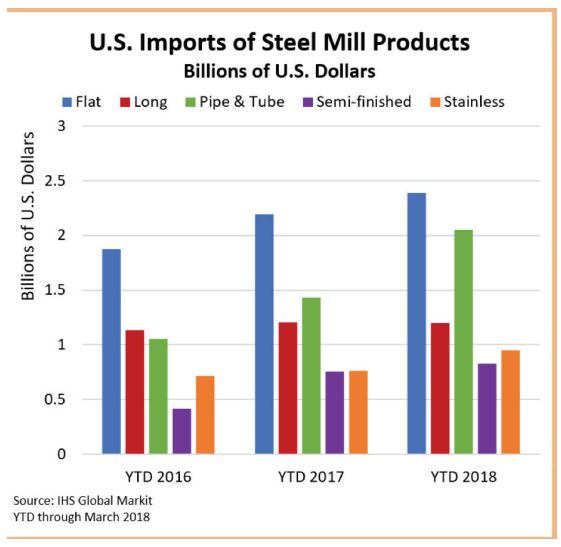
New technologies, such as advanced analytics and machine learning, "will disrupt airfreight forwarding profoundly over time," McKinsey believes.

Unlike, say, Flexport, which competes directly with freight forwarders, Cargo.One, for one, isn't attempting to dis-intermediate brokers, Neumann stressed. In fact, he said, freight forwarders are the lynchpin of the service. "We are actually empowering the freight forwarder," said Neumann. "We are simplifying the process, thus decreasing the cost, therefore helping the freight forwarders do better offering to their shippers. On the other hand, we are giving them a technology layer to do their own offers to their shippers."

The Cargo.One platform instantly offers carrier alternatives, comparing both price and time to destination.

Because airfreight transport is so heavily regulated, licensed forwarders will continue to dominate, Neumann believes, Cargo.One plans to charge a commission on each deal.




*(**GATEWAY** – continued from page 7)*

underscored the importance of "shared cultures and shared borders" with Mexico. "We have a lot more in common with Mexico than what separates us," he observed, somewhat philosophically, pointing out that besides steel, PoB also receives limestone for buildings, sugar, bunker sea fuel, celestite, etc. "Export shipments from our port to Mexico include steel, slabs, scrap, pig-iron, petroleum, etc.

PoB had a record year in 2017, and it is "strong and getting stronger", as Brownsville Navigation District Vice Chairman John Reed put it in his annual state of the port address on March 8.

The port's total operating revenue reached nearly $24 million in unaudited total revenue, exceeding the previous high-water mark of $19.9 million set in 2015 by more than $4 million.

On the annual tonnage side of the business, the volume of cargo handled at the port topped 10.3 million tons, also a new record.

Vessel traffic recorded a 21% increase; a total of 1,317 vessels called on the port in 2017 – up from 1,091 vessel calls registered FY 2016.

*(**DIGITALIZATION** – continued from page 10)*

ship might not be available or a port backed up.

"Even if you're the best manager you can't keep them all in your head, let alone the real-time changes that take place in those different circumstances," said Varvarenko.

Shippers usually rely on trusted intermediaries, primarily freight forwarders to ease the way. But these intermediaries face the same hurdles and must deal with the same endless alternatives, more intermediaries and the same outmoded lines of communication. Many traditional freight forwarders are small and lack sophisticated technology. Their response is often to offer few alternatives and count on their own contacts. This entire process is both opaque and highly inefficient and could cost shippers a great deal of unnecessary time and expense.

"The level of complexity due to intermediaries is extremely high," said one technologist who has studied the industry. And "you have six, seven, eight, nine ten companies touching your freight, and those are small companies… Intermediaries and fragmentation make it immensely complex to digitalize."

Startups such as ShipNext attempt to overturn the old order.

"Connectivity solutions can enable the seamless flow of information and documents among all stakeholders, including shippers, carriers, terminals, forwarders, and port authorities," wrote Boston Consulting Group, in a February paper that focused on a "digital imperative" in shipping. "An online booking platform that lets a customer receive instant quotes will soon be considered table stakes for competing in the industry."

Money is being poured into this endeavor. The consultancy pointed out that "in the past six years, more than $3.3 billion has been invested in digital startups in the shipping and logistics sector."

Varvarenko decided that ShipNext's first offering would target bulk and project cargo.

### Breakbulk 4.0?

In many ways, building a system to book containerized freight is a more simple and straightforward task than bulk or project cargo, since container ships tend to steam on established routes at regular intervals, while project cargo, for example, may involve hundreds of suppliers sending goods that are all different, and all must be shipped in a certain sequence.

No matter what the cargo, each piece has four critical components: length, width, height and weight. With the ShipNext service, said Varvarenko, "having that critical information, you can easily find the ship with the right hatch size, with the right height. You can easily check whether that port of discharge or loading has a crane and if it doesn't have a crane big enough to handle that kind of cargo, you have to already start looking for a geared ship, you have to find a ship with the best matching cranes, sufficient safe working load, in a position to load this cargo on the dates when it's reportedly ready for shipment."

"There are a lot of calculations when it comes to doing it manually," he said. "On ShipNext, it's done in less than a second."

Varvarenko uses this example: A shipper wants to send iron ore from Houston from Singapore. Through its machine-learning algorithm, ShipNext would read through and evaluate related email, store them in a file, assess the cargo's weight and dimensions as well as any peculiarities, run through the calculations of what ship is required, scan the database of ships that are available globally, factor in port restrictions, appraise the capabilities of identified ships and give the shipper the best matches, all in about a second.

The bill of lading and other, related documents represent another aspect of the booking process that remains firmly planted in the previous century. ShipNext is now testing an electronic bill of lading that uses open source software, the first step in a so-called smart contract. A smart contract allows instant verification by various parties involved in the shipment – the shipper, the receiver, the carrier, the port – and could trigger payment and other activities, a so-called blockchain, where documents are linked through cryptography to parties in blocks.

"Everybody believes shipping could be more efficient and more secure and reliable," said Varvarenko. "This is one of our tasks by creating a blockchain solution or just by digitalization in shipping in general."

It's not just the shippers and the vessels, either. While ports have invested millions of dollars in management systems, these are closed systems. A service such as ShipNext allows vessels to know the state of port congestion and take action, such as slowing down or even calling on another port along the way first.

*(**DISRUPTER** – continued from page 6)*

2017. "U.S. automakers tend to buy much of their raw steel and aluminum domestically, but they import certain components from other countries," noted Rick Schreiber, a manufacturing and distribution expert at BDO, an accounting and advisory firm. "Beer manufacturers, rely on imported thin aluminum to make cans for their products. Tariffs would make much-needed foreign materials more expensive."

While U.S. steel and aluminum makers may see a short-term boost to their production, "there are structural limits to the increase," Schreiber added. "Steel mills may not be able to easily or cheaply convert their facilities to produce different kinds of components previously made abroad. They may also not be able to meet the demand for products formerly imported from other countries."

### Energy Companies & Steel

Energy companies have lobbied against the tariffs because there just isn't enough domestic steel available to make pipeline materials. U.S pipelines are currently made with only about 30% domestic steel components, according to data from IHS Global Insight. "Requiring pipelines to be made entirely of U.S. steel," said Schreiber, "would make their production prohibitively expensive to American companies and hamstring efforts to support the energy industry."

It shouldn't be surprising that Canada is trying to hit back hard on the Trump tariffs, in light of research from the Brookings Institution that shows that Canada "is by far the hardest-hit by the tariffs" as compared to the EU and even China. Trump's tariffs are also hitting other U.S. allies. (See sidebar.)

A Canadian CITT safeguard inquiry is likely to take 180 to 270 days from when the agency gives notice of the inquiry. According to Tereposky & DeRose, once the notice is issued, interested parties will file notices of participation and the CITT will issue written questionnaires to domestic and foreign producers and to importers and Canadian purchasers. A tribunal will prepare and distribute an investigation report, after which interested parties can file briefs in support of or in opposition to specific findings. After an oral hearing, the CITT will issue a written report determining whether the imports investigated represent a principal cause of serious injury, or threat of injury, to domestic producers.

Safeguard measures applied by the Canadian government, if it comes to that, would likely take the form of an import surtax which would have the effect of limiting imports of the goods found to be injuring Canadian producers. The government could, under exigent circumstances, also impose provisional safeguards under a preliminary determination even before the CITT investigates.

At a policy level, the Brookings report argues that Trump is targeting allies such as Canada and the EU with tariffs "as a means of rupturing their mindset—convincing them that they are no longer deserving of American coddling just because of their geopolitical status." Those allies are now faced with big question, the paper concludes, "whether Trump is an unfortunate temporary anomaly, or merely the first in a coming succession of America First presidents."

# Trump's tariffs hit US Mideast allies

By Peter Buxbaum, AJOT

In the roller coaster ride that has been the process of rolling out the Trump steel and aluminum tariffs, President Donald Trump first announced measures against all imports into the United States, other than from Canada and Mexico. The administration later exempted several other U.S. allies from the tariffs—at least temporarily—including South Korea, Australia, and the European Union—while also announcing procedures to apply for further exemptions. Later those exemptions with respect to steel were lifted, meaning, they are to be applied globally, while tariffs on aluminum apply to all countries of origin except Australia and Argentina. (Argentina is covered by a quota.)

Meanwhile U.S. allies like the Middle Eastern island kingdom of Bahrain are still being left out in the cold. Home to the U.S. Navy's Fifth Fleet and its 20,000 sailors at the port of Manama, Bahrain was the world's eighth-largest producer of aluminum in 2016, with 970,000 tons, accounting for 10% of the country's economy. The kingdom has also taken recent steps to expand its aluminum production.

Following the announcement of the Trump tariffs, Bahrain hired a high-profile US law firm, the Washington-based Miller and Chevalier, to help convince the Trump administration to ease the impact of new tariffs that could harm a U.S. ally.

The Moody's credit-rating agency says Bahrain will be among the hardest-hit countries by the tariffs. Aluminum made up 61% of the country's exports to the U.S. last year. Bilateral trade between the two countries has been growing steadily since they signed a free trade agreement in 2004.

The tariffs could also adversely impact other U.S. allies in the region, including the United Arab Emirates, Qatar, and Turkey.

The steel tariffs are adding to the tension between the U.S. and its NATO ally Turkey, two countries that once enjoyed a closer friendship than they have today. Turkey has also not received an exemption from the tariffs.

Turkish steel producers buy nearly four

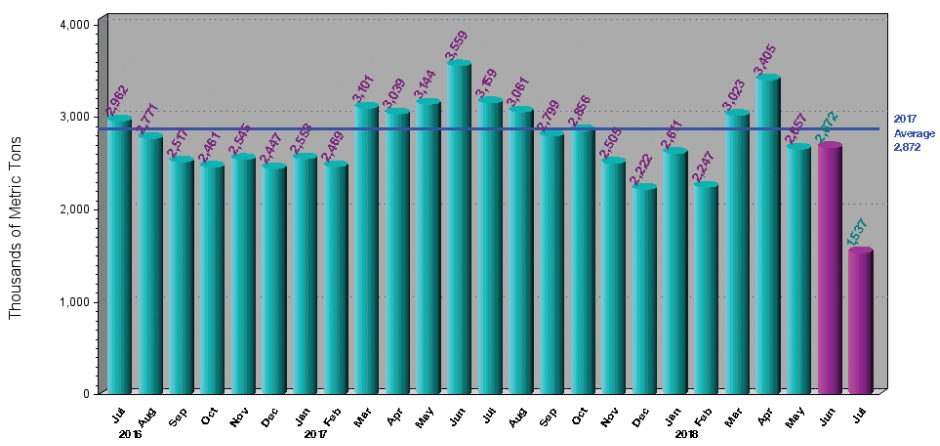
*(**ALLIES** – continued on page 15)*

| U.S. Steel Export Market Share | | | | |
|---|---|---|---|---|
| Top 10 Import Sources | Share of Exports to U.S - 2016 | U.S.'s Rank in 2016 | Share of Exports to U.S. - 2017 | U.S. Rank in 2017 |
| Canada | 87.7% | 1 | 89.9% | 1 |
| Brazil | 34.0% | 1 | 32.8% | 1 |
| South Korea | 12.1% | 2 | 11.2% | 3 |
| Mexico | 72.9% | 1 | 65.0% | 1 |
| Russia | 2.3% | 11 | N/A | 0 |
| Turkey | 15.0% | 1 | 10.7% | 1 |
| Japan | 4.9% | 7 | 4.7% | 8 |
| Germany | 4.0% | 9 | N/A | 0 |
| Taiwan | 9.2% | 3 | 9.6% | 3 |
| China | 0.8% | 25 | 1.1% | 26 |

Source: IHS Global Trade Atlas, based on import data per reporting country

2017 Data not available for Russia and Germany

U.S. Imports of All Steel Mill Products
From World




SOURCE: U.S. Department of Commerce, Enforcement and Compliance
Graph last modified on : July 17, 2018 with
Licensing Data collected through July 17, 2018
Commerce license data used for the last months appear in a different color
Data extracted from the import licenses are not official Census data

| United States Top Steel Producers in 2017 | | | |
|---|---|---|---|
| Rank | Company | Production (mmt) | Main Products |
| 1 | Nucor Corporation | 24.39 | Bars, beams, sheets, plate |
| 2 | ArcelorMittal USA | 15 | Hot-rolled, cold-rolled, plate, coated products, rails |
| 3 | United States Steel Corp. | 14.43 | Hot-rolled, cold-rolled, coated sheets, tubular products |
| 4 | Gerdau North America | 12.4 (N. Amer. capacity) | Beams, pilings, billets, rebar, wire rod |
| 5 | Steel Dynamics Inc. | 8.27 | Flat-rolled, structural, bars, rails |
| 6 | AK Steel Corporation | 5.6 | Hot-rolled, cold-rolled, galvanized, stainless, electrical |
| 7 | Commercial Metals Co. | 3 (capacity) | Rebar, bars, sections, billets |

Source: World Steel Association; Metal Bulletin, *Iron and Steelworks of the World Directory 2017*; Company websites





(*SOLUTION – continued from page 8*) domestic steel demand.

Metinvest's 2017 global sales of pig iron amounted to nearly 1.69 million tonnes, up 21.3%, iron 1.39 million tonnes in 2016.

With 15 million tonne crude steel capacity in 2017, Metinvest is one of the largest steel producers in the Commonwealth of Independent States (CIS) that emerged after the collapse of the former Soviet Union.

Ryzhenkov said that while global steel demand was on the rise, the share of steel trade had, in fact, declined. Ukraine's exports had declined by 9 million tonnes since 2013. Rising trade restrictions had been one of the reasons for the overall steel trade decline. Consumers would end up paying more because of the restrictive measures under Section 232.

Another negative fallout from the rising protectionism was the migration of U.S. companies whose products faced higher tariffs in the importing market. He cited the case of Harley-Davidson motorbikes. He said the motorbike manufacturer had lamented that the tariffs enacted by the European Union, a major market for its products, was imposing 31% tariffs, which had increased the cost of each motorcycle shipped from the U.S. by about $ 2,200. Would Boeing, General Motors, General Electric and others now follow Harley-Davidson's example?

Consolidation and change in the business model are the only sustainable ways to fight overcapacity and create value, he said.

Tariffs imposed under Section 232 may have helped steelmakers using electric-arc furnaces achieve strong profitability; however, such tariffs are a major setback for steel-consuming industries that have to pay more for imports, according to Ryzhenkov who said that there will only be losers in the U.S. as well as in the supplying nations which would retaliate with their own set of tariffs on products from the U.S. Also, imported steel – U.S. imports of steel in 2017 amounted to 34.47 million tonnes - cannot be substituted with domestic steel in a short span of time, since import substitution would take anything between half a year to two years

*(**UNPREDICTABILITY** – continued from page 4)*

Chinese steel producers are scouting for new markets as well and shipping lines are monitoring progress. One closely watched effort is China's hugely ambitious initiative, One Belt One Road, which is pouring billions of dollars into infrastructure projects in developing countries across the globe. "There are indeed new opportunities for our mother company Zeaborn and Rickmers-Line, for example, to Pakistan," Joithe said.

What about project cargo? "So far we have seen small instances where some commodities are affected," Joithe said, citing "HVAC technologies where US buyers have opted out from Chinese suppliers and now source from Europe."

However, Joithe stressed that switching suppliers for major projects is no easy task. "If a refinery project in Lake Charles is now hit with 25% additional costs of key components from China that cannot be switched due to the plant design, the higher costs will ultimately hit the final consumer," he said.

Then, there's the flipside to the cascading trade wars, China's threatened imposition of stiff tariffs on American soybeans. What does this mean for global shipping? Rickmers-Line, itself, rarely moves soybeans, and Joithe said, "it's very hard to anticipate the cascading effect of diminished soybean exports from the USA to China on the Supermax segment." If, for example, China begins to ramp up imports from Brazil, the world's second biggest soybean producer after the US, "Brazil owners would simply reposition their bulkers to deal with the trade shift," Joithe believes.

China produces about 500 million pigs, which rely on soybeans as their main feedstock. China, itself, doesn't produce nearly enough soybean crops on its own and accounts for 60% of the world's soybean importation. "The soybeans will have to come from somewhere," Joithe said.

*(**ALLIES** – continued from page 13)*

million tons of scrap steel from the U.S. every year, exporting it back after processing, mostly as construction steel. Turkey, a major steel producer, felt put off by the steel tariffs given the exemptions originally given to some countries.

Officials from Turkey's Economy Ministry are in contact with their US counterparts in an effort to gain an exemption from the steel tariffs. The Turkish government has indicated the country might impose new tariffs on US agricultural and technology exports. The decrease in Turkish steel exports to the US could also lead Turkish steel producers to import less scrap steel from the U.S.

Turkey's main opposition party is pushing for tariffs on cotton imports from the United States. Turkey imported $519 million of US cotton last year, roughly the equivalent of the $525 million of angular iron rods Turkey exported to the U.S. in 2017.

Interestingly, the U.S. ran a $3-billion trade surplus with Turkey last year. Now, some in Turkey want the principle of reciprocity to be applied to trade with the United States, a concept that Trump has instituted as the cornerstone of his own trade policy.

*(**CONSORTIUM** – continued from page 2)*

to combine land and water transport to deliver merchandise to destination. We need new agility and effectiveness based on intermodality and access to new ports and terminals."

Bellisle added: "Intermodality is the key to success for the future. Our clients' cargo must travel faster and faster to reduce inventories and handling costs."

"We are proud to associate ourselves with complementary and strategic partners such as QSL and Express Mondor for continued operations in this industry sector. The consortium will provide many opportunities and a broadened service offering to our clients", said Michel Robert, president and CEO of Groupe Robert Inc.

"Our clients will enjoy cutting-edge expertise and enhanced services thanks to the talent and know-how of the 300-plus employees that the new entity will count on for its continued success", said Éric Mondor, president and CEO of Express Mondor.

Established in 1995 by brothers Eric, Dany and Billy Mondor in Lanoraie, Quebec, Express Mondor has developed a strong niche in specialized and over-dimensional ground transport in Canada and the United States. Operating a fleet of compressed natural gas trucks since 2016, it joined the North American SmartWay program promoting a greener future.

*(**LOOMED** – continued from page 5)*

figures, Jayram said that steel accounted for 6.1% of the country's industrial output. India, according to Jayram, is the third largest steel-producing country in the world. Infrastructure, construction, automotive, engineering and other projects are the major demand drivers. India's steel industry is projected to reach a capacity of 260 million tonnes by 2030; the projected capacity for 2018 is about 96 million tons.

However, the WSD was cautious in its assessment, saying that India cannot become the "next China" because it operates under a market system in which access to funds by businesses tends to be expensive. Current steel demand in India is nearing 100 million tonnes per year. "If it grows 6% per year over the next decade, which seems possible, steel demand would rise to about 180 million tonnes. Current steel demand in China is about 775 million tonnes," the WSD said, adding that it was, nevertheless, "very bullish on Indian economic growth in the next decade because a) its external debt is not so high, and b) it is now benefitting almost fully from the power of the information and technological revolutions".

JSW Steel of India is planning to invest $500 million to acquire, enhance and upgrade Acero Junction Inc., an integrated steel manufacturing plant in Ohio with a potential capacity of 3 million tons per year, of steel.

The announcement comes on the heels of JSW's announcement in March that it will expand operations at its plate and pipe mill in Baytown, Texas – another $500 million investment that is expected to create 500 jobs there.


# Tandem Lifting boosting productivity and reducing energy consumption

By Patrick Draper, Ram Spreaders, Special to the AJOT

Energy efficiency is one of the most common phrases used in the container handling industry these days. Mega ships have been built to reduce energy per box but also to help improve carbon footprint with more containers being carried by less journeys.

The same can be said when we think what happens when the containers arrive at the container terminal. It would seem logical to follow the same idea by a method of moving more containers with fewer journeys when unloading a ship. This too would increase volume and help towards ports or terminals to reduce their carbon footprint by being more energy efficient.

### Tandem Increases Load Rates & Saves Energy

Single hoist Tandem, capable of lifting two 40 feet containers has been designed to increase port performance with an emphasis on energy reduction as key design criteria.

A lightweight single hoist tandem system which uses essentially the same crane design can reduce energy at the port significantly more than other green system that just shift the source of emissions. While physics dictates that energy used to move a box can't change moving of 100 boxes in 50 moves vs. 100 moves will significantly reduce the total energy needed per TEU by reducing trolley moves and reducing moment of inertia per move.

### How Much Energy Does It Save?

The quick answer is 15%. The example of moving 100 empty containers in 50 moves vs. 100 moves reduces the energy consumption significantly.

A recent study has shown by comparing the crane's energy consumption between a single spreader operation and tandem spreader operation; the results are impressive.

The power consumption of a crane is on average 10.7kW when lifting single 20ft containers. Using a tandem head block that lifts more containers per lift cycle consumes only 5.1kW of power per TEU, as it lifts more containers per lift cycle; saving 5.6kW of power, per container.

So over the course of a year, a typical 100,000 TEU capacity terminal can save 5,600,000 kW of power using a tandem head block.

### What are the Cost Savings?

The cost of energy is a significant overhead cost for

(**CONSUMPTION** – *continued on page 18*)

# ABB/Ballard zero emission fuel cells could replace shore power requirements for ships

By Stas Margaronis, AJOT

The recently announced ABB (ASEA Brown Boveri) and Ballard Power Systems collaboration will build zero emission fuel cell modules that can eliminate the need for costly shore power installations for ships at ports and provide zero emission marine power.

A Ballard spokesman told *AJOT* that "ABB is very much interested in providing fuel cell modules for the cruise ship industry. More ports are requiring that cruise ships shut down their engines while they are in port to avoid generating diesel emissions."

In California, the regulation for shore power states: "The purpose of the At-Berth Regulation is to reduce emissions from diesel auxiliary engines on container ships, passenger ships, and refrigerated-cargo ships while berthing at a California Port."

Shore power must be used by these vessels to plug into the local electricity grid and auxiliary engines turned off while at-dock. When using shore power, auxiliary systems, such as lighting and

(**REPLACE** – *continued on page 18*)

RAM's quick change docking station

(*CONSUMPTION – continued from page 16*)

terminal operators which is generally fixed and with little control over unit costs. Terminals can however take measures to control the amount of energy consumed. Take for example a typical EU tariff cost of 0.16 Euros per kW. A terminal with a capacity of 1 million TEU's when using a tandem head block, can save Euro €450,000 Euros, compared to using single lift.

Moving more containers in a lift cycle provides an opportunity for the terminal to increase productivity and increase revenue. By reducing the amount of lift cycles per hour also increases the longevity of the crane and spreaders because they work less for the same TEU output of a standard single lift cycle.

Ports and terminals are under pressure to reduce their carbon footprint under various regulatory bodies and governmental guidelines. Measures such as better energy efficient lighting, improvements in motor technology, streamlining operations and using lightweight spreaders all contribute towards improving a terminal's carbon footprint, but the introduction of tandem lifting is showing significant reductions in energy and costs helping terminals towards improvements towards their energy management plans.

### The Innovation Behind Tandem is Achieved at a High Percentage

Producing a machine that helps ports and terminals save time, energy and cost was particularly at the forefront of RAM Spreaders research and development team and the foresight to meet the demands for future port operations.

Also by understanding the needs of the crane operator, RAM has produced an innovative system that maximises the ability to do tandem moves.

RAM provide a tandem head block system which allows the crane operator to change from single to twin spreader or vice-versa in less than 2 minutes, without calling on additional ground staff assistance. More importantly, it can handle all the vessel and yard exceptions that would result in a need to change; meaning the crane operator can stay in tandem mode for much longer.

The innovative docking station supplied with RAM's tandem head block providing a change-over speed of spreaders in less than 2 minutes, without the assistance of ground personnel increase speed and reduce energy consumption.

### Popularity is Growing

With more than 80 units of single hoist tandem delivered in the last few years, ports and terminals in Asia, Africa, South East Asia, North Africa, United Kingdom and Dubai, using RAM SingFlex™ tandem head block now have that competitive edge; by increasing their TEU capacity and reducing their carbon footprint by being more energy efficient.

(*REPLACE – continued from page 16*)

air conditioning, use energy from the local electrical grid. Shore power typically produces zero onsite emissions.

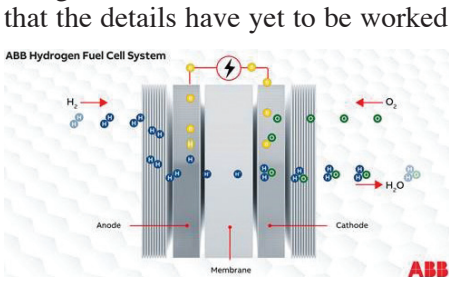
The U.S. Department of Energy says fuel cells powered by hydrogen produce no emissions: "Fuel cell electric vehicles (FCEVs) are powered by hydrogen. They are more efficient than conventional internal combustion engine vehicles and produce no tailpipe emissions—they only emit water vapor and warm air. "

The fuel cell module potentially offers a lower cost solution to a port's shore power investment by incorporating the clean energy solution on the ship using the module. This avoids the expense of building a shore side power system costing millions of dollars and requiring shipowners to pay for reconfiguring ship engine rooms to include the shipboard connection. This also saves the shipowner the cost of buying electricity from the grid.

The spokesman said that the ABB/Ballard Agreement "is a developmental agreement and what that means is that the details have yet to be worked out. ABB will describe what size fuel cell module it wants and other relevant specifications. We expect that the first product will be produced by around 2020."

"Hydrogen fuel cells are at the forefront of zero-emission technolo-

(*REPLACE – continued on page 19*)




# First US-built zero emission fuel cell ferry will sail on San Francisco Bay in 2019

By Stas Margaronis, AJOT

The first hydrogen fuel cell powered vessel built in the United States will sail on the San Francisco Bay in 2019 and it will generate zero emissions.

The vessel is a ferry and is primarily financed by a $3 million grant provided by the California Air Resources Board (CARB).

The ferry is a 70-foot aluminum catamaran that will sail at a 22-knot top speed. The vessel is powered by two 300 kw electric motors using electric drivetrains provided by BAE Systems. Power is provided by a combination of 360 kw of hydrogen fuel cells and lithium ion battery packs. The ferry will have the capacity to carry up to 84 passengers.

BAE Systems is a provider of electric propulsion solutions and will provide the systems integration with fuel cell and lithium-ion energy storage.

David Adamiak, business development manager, BAE Systems related to the *AJOT*, "This is a globally significant project because there are very few hydrogen fuel cell vessels in operation. The fuel cell industry is in the early stages of development and as a result vessel operators are waiting to see what costs and risks are associated with the operation of a vessel. The first operator is going to run the most risks, and everybody will observe how that process plays out. "

The CARB grant was essential to provide the necessary financing for a zero-emission vessel that was not available from commercial funding sources. The CARB grant was provided by California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions.

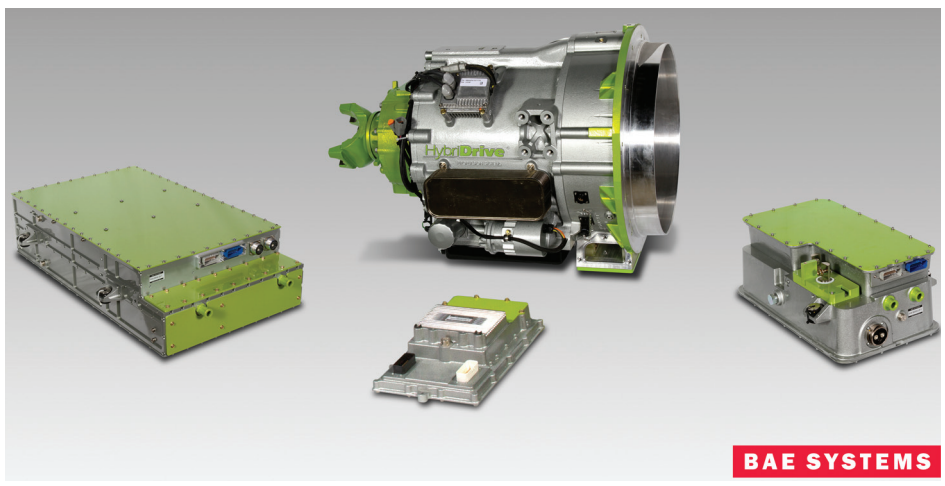
Development of fuel cell modules are plagued by costing far more than comparably powered diesel engines and hydrogen fuel costs more than diesel fuel, Adamiak said.

Adamiak says the increased manufacture of hydrogen-powered buses and cars will improve economies of scale and drive down the costs of both the modules and hydrogen fuel.

He said there is no significant loss of hydrogen gas stored in tanks on board a vessel.

Dr. Joseph Pratt, CEO of the vessel operator, Golden Gate Zero Emission Marine, told *AJOT* that the U.S. could become the world leader in building hydrogen fuel cell vessels. He said there is a plentiful supply of hydrogen gas in the country. The gas is used in a number of U.S. industrial applications including in the manufacture of fertilizer, so a truck delivery system already exists in many parts of the country.

Other partners in the project include: The Bay Area Air Quality Management District, project administrator, Bay Ship & Yacht Company, BAE Systems, Red and White Fleet, the Port of San Francisco and Sandia National Laboratories.




The ferry will be powered by electric motors using electric drivetrains provided by BAE Systems.

# Port operations reach new highs

***Drones to deliver for port authorities***

By Matt Guasco, AJOT

Earlier this month the Maritime and Port Authority of Singapore (MPA) signed an agreement with Wilhelmsen Ship Services (WSS) and Airbus to develop an unmanned air system (UAS) to assist in various port and ship operations. The initial pilot program scheduled for Q-3-18 is aimed at the delivery of spare parts, documents and parcels to vessels anchored within the harbor.

Andrew Tan, MPA's Chief Executive Officer, said "MPA will provide a suitable test-bed in the Port of Singapore for both companies to test their systems at sea and enable us to develop the regulatory framework for drone deliveries. The use of such innovative technology could help improve productivity and free up manpower and resources that could be deployed for other value-added jobs."

Airbus recently concluded an initial test of their unmanned system delivering parcels between two stations within the port. The new joint service called Agency by Air will now perform extensive tests of port to ship deliveries. The first phase will be a two-week trial involving a series of drops to ships anchored a mile and a half off the port's eastern anchorage. Two control stations will be set up quayside with an additional location at Marina South, Marina Bay Singapore. Designed for parcel delivery in dense urban areas, the Airbus Skyways drone was initially tested in and around National University of Singapore earlier this year. It will be adapted for heavy load use in the initial offshore trials.

### Wilhelmsen Takes to the Air

WSS has put the full weight of their development team behind UAS technology as part of their ship chandlery operation. They believe drones would significantly cut delivery time and cost allowing for more productive scheduling of services. Unmanned air ships could, one day, significantly reduce the use of crews for water borne deliveries. Wilhelmsen is currently evaluating drones for use both at sea and on inland waterways. Marius Johansen, VP of Business Solutions, acknowledged that with today's technology, drones are capable of carrying heavy payloads. While currently confined to shore side operations, Johansen envisions drones hauling payloads of up to 1,700 lbs, supplying parts to ships at sea. Wilhelmsen operates in over 2,000 ports in 125 countries worldwide; the potential for expanding the integration of port operations and related services is immense. A drone delivery service could conceivably be 90% cheaper than using launch boats, Johansen said.

### Ports of the Future Today

Singapore unveiled its vision of the future at their 'Intelligent Port of the

*(**HIGHS** – continued on page 23)*

*(**REPLACE** – continued from page 18)*

gies for shipping," said Juha Koskela, managing director, ABB Marine & Ports. "We look forward to working with Ballard Power Systems on the next-generation fuel cell technology, in line with our commitment to equip the marine industry with electric, digital and connected solutions that maximize the full potential of vessels and enable a safe, efficient and sustainable maritime industry."

In 2017, ABB announced that it was delivering its first fuel cell system for Royal Caribbean. The system will be deployed on board a Royal Caribbean vessel and will be the first fuel cell system to provide an energy source for a luxury cruise ship. "Our goal is to take the smoke out of the smokestacks, said Harri Kulovaara, executive vice president of Maritime and Newbuilding, Royal Caribbean Cruises Ltd. "We are dedicated to innovation, continuous improvement, and environmental responsibility, and using fuel cell technology gives us the opportunity to deliver against all three of these pillars."

ABB is a Swedish-Swiss company headquartered in Zurich, Switzerland that produces electronics, robotics, heavy electrical equipment and automation technology.

The Ballard spokesman said: "The modules will be scalable so, for example, they might generate from 1 megawatt to 10 megawatts of power, but this has yet to be determined."

Ballard has built 1 megawatt hydrogen fuel cell modules. One module was sold to Toyota for its Torrance, California headquarters. This allowed Toyota to reduce its electricity costs by switching to the fuel cell module during peak hours when electricity costs are at their highest. That installation is several years old: "Today, it would be cheaper because the cost of producing the modules is going down as the sale of hydrogen powered fuel cell modules increase," he said.

Currently Ballard fuel cell modules have been deployed in many sectors of the transportation business; in transit buses, commercial trucks, forklifts and drones. Audi is planning to utilize a fuel cell module for a new car model.

The spokesman said cost of hydrogen fuel "is in the region of 10-20% more expensive" than diesel fuel. As more companies contract for hydrogen fuel that cost will decrease.

He also said that a fuel cell module costs more than a comparably powered diesel engine. However, the total maintenance cost of the fuel cell compared to the diesel engine is substantially less because "the fuel cell module has no moving parts."

As proof, Ballard has sold buses in London that have gone for 30,000 hours without maintenance: "A diesel engine would have required maintenance far sooner."

Ballard Power Systems is a Canadian company located in Vancouver, British Columbia which produces fuel cell technology and employees 600 people.

# Intermodal & Logistics News

## Soaring cost of trucking threatens to stoke US inflation

The tightest trucking market in years is testing the limits of an otherwise well-conditioned U.S. economic expansion. It's also tinder for accelerating inflation should the capacity constraints spark moves by companies to pass on those higher delivery costs.

A shortage of drivers, new regulations and solid demand are driving up rates charged by trucking companies to haul loads over the country's more than 46,000 miles of interstate highways. Combined with higher materials prices, partly due to the Trump administration's tariffs, rising transportation costs are putting pressure on goods producers.

"Demand is exceeding capacity in most modes of transportation by a significant amount," Donald Broughton, managing partner of Broughton Capital, wrote in the Cass Freight Index Report for May. "In turn, pricing power has erupted in those modes to levels that continue to spark overall inflationary concerns in the broader economy."

Producer-price figures from the Labor Department showed that inflation continued to build in the sector last month, with general long-distance freight trucking costs advancing 9.4 percent in June from a year earlier. That was the largest year-over-year increase in nearly a decade. The broader producer-price index was up 3.4 percent, the most since November 2011.

Anecdotes about rising costs are piling up. The Federal Reserve's latest Beige Book, published in late May, cited a North Carolina trucking company that said some customers were willing to pay rates that quadrupled. In the Chicago district, "numerous contacts" said freight costs had "increased dramatically."

The trucking industry's plight is it has robust demand amid a shortage of drivers and government regulations aimed at making the roads safer while limiting hours on the road for America's truckers.

The cost to haul a full truckload of finished product or materials has soared this year. Cass Information Systems' measure of per-mile rates, excluding fuel charges, jumped 9 percent in May from a year earlier, the most in records going back 13 years.

Per-mile rates for dry vans, temperature-controlled trailers and flatbeds have roared above $2, according to data from Truckstop.com.

Rates are on the move because the economy is on cruise control as steady-and-solid business investment and consumer spending stretch the capacity of the nation's freight sector. What's more, the implementation of electronic logging devices that ensure drivers adhere to maximum-allowable hours on the road and duty time has effectively removed the ability to fudge paper logs. While that may make the roads safer, it's nonetheless another capacity restraint.

PepsiCo Inc., like its competitors in the U.S. food and beverage industry, has been grappling with higher transportation costs that are pressuring margins. Hugh Johnston, the company's chief financial officer, said freight costs started to accelerate at the beginning of this year, largely due to a trucker shortage and new regulations on drivers.

Truckstop.com, an online freight-matching service, said a gauge of demand for available trucks started to firm in early 2017 and then accelerated this year.

An index of May freight shipments from Cass was the strongest since before the last recession and close to a record in data back to 1990. That helped propel a measure of expenditures on truck transportation to an all-time high.

A near-record number of unfilled positions across the U.S., along with the grind and stress of a career putting in long hours behind the wheel, underscore the difficulty the trucking industry has in attracting drivers. Government figures show that while long-distance freight hauling payrolls are increasing, they're doing so at a snail's pace and remain below the peaks of the last two expansions.

"The market has been much tighter this time around and they are passing at least 50 percent to drivers now, and a smaller percentage is going to the bottom line," Klaskow said.

## US trucking executives say lack of communication with finance hurts new truck acquisitions

"A significant lack of communication between fleet operations and finance departments" within the US trucking industry is hampering fleet upgrades and modernization, according to a survey issued by Fleet Advantage, an industry analyst.

The survey found the following:

• 18.8% of private fleet management executives say finance officers don't understand how newer trucks can reduce driver turnover and improve retention. This item is critical, particularly as driver shortage and turnover rates continue to grow. According to the American Trucking Association's Trucking Activity Report, the annualized turnover rate at large truckload carriers, those with more than $30 million in annual revenue, increased six points to 94%. The turnover rate for smaller carriers fell to 73% but was still seven points higher than the previous year.

• Finance officers are unclear about the role proper fleet acquisition strategies and lease versus purchase decisions play on a company's bottom line, which is why only 25% of operations management believe this area is a concern for finance departments.

• 37.5% of fleet executives cited the inability of their finance departments to clearly communicate the company's financial metrics and goals to the operations department as the largest communications struggle. An additional 34.4% said finance doesn't understand the benefit of investing in newer equipment; and 31.3% said finance doesn't understand various operating costs associated with the fleet.

## Lanetix LxRoadFreight fills critical niche in freight market

***Lanetix recently launched the software suite LxRoadFreight, which is specifically designed for domestic freight brokers and trucking firms. The suite offers out-of-the-box solutions that stand to place the smaller domestic freight brokers and trucking firms on a digital par with industry powerhouses.***

By George Lauriat, AJOT

In a phone interview with John Golob, president and founder of Lanetix, the first thing that came across is potentially what a game changer the LxRoadFreight suite of software can be for domestic freight brokers and trucking firms. The smaller domestic freight brokers and trucking companies have long been working at a digital disadvantage with the larger players, such as the global 3PLs. But LxRoadFreight might be able to help level the playing field.

As Golob explained, for the last five years Lanetix has been developing products for the top tier global logistics providers. Lanetix and indeed most SaaS providers built CRM (Carrier Relationship Management) packages that were crafted to the needs of the top tier logistics providers at a price out of reach to the smaller domestic players. "What we heard from the mid-market and down folks (was) they'd love to use this technology…but our product was centered around more complex customized installations which was really a fit for the larger 3PLs like a C.H. Robinson."

The problem for the lower end of the market – for companies with less than ten trucks or just a few warehouses - is that the CRM software in common use like Salesforce, Microsoft Dynamics, Oracle CRM Demand or SAP CRM, "wasn't made for logistics market," as Golob observed. "What we've done [Lanetix] is we've taken our tool, which is built for logistics, and we're making it accessible to that smaller market," Golob added.

Smaller is relative. The domestic mid-market and down trucking /freight broker niche is broad.

According to the Lanetix's industry research of the 500,000 U.S. trucking firms, 100,000 own less than seven trucks. The research also suggests the niche is growing, noting as the 17,723 licensed freight brokers grew by 5.6% last year.

One of the key issues for this growing industry niche is the price point. The technology has been available but was cost prohibitive – particularly when customization is factored into the tally. While cloud-based CRMs often cost $60,000 (40 subscribers) in annual fees and another $125,000

*(**NICHE** – continued on page 23)*

John Golob, president and founder of Lanetix

## City of Borger submits Federal grant on behalf of Panhandle Northern Railroad

The City of Borger has submitted a federal grant for the 2018 Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements (CRISI) program for a project to improve and enhance safety and security of the short-line rail system. The CRISI Grant provided by the Consolidated Appropriations Act of 2017, funded by the U.S. Department of Transportation, is offering $65 million to be split nationwide to enhance infrastructure and safety improvements of railroad lines.

The City of Borger will be the lead applicant for the grant. The City is joined in the application by two co-applicants who are also both eligible applicants under the CRISI program: The Panhandle Northern Railroad, LLC (PNR), and the Panhandle Regional Planning Commission.

The project will invest $4,328,511 to install 13,682 new railroad ties, and 13,415 tons of new track ballast to better secure the track structure along the PNR's 32-mile owned right-of way. This project proposes strategies that will decrease the derailment risk on PNR and allow for the continued and enhanced safe transportation of over 10,000 carloads of materials including sensitive materials such as methyl mercaptan, anhydrous ammonia, refined gasoline, crude oil, isopentane, heptane, flammable liquids, methanol, LPG, sulfuric acid, toxic corrosive liquids, and over 1,000 carloads of other hazardous material types. The project will also promote economic vitality for the Borger area and the Texas Panhandle Region.

"The City of Borger is excited about this opportunity to help the railroad and our industrial partners in the community. Industry is a part of who we are as a community and we are pleased to be able to step up and help out with this opportunity," said Bubba Dixon, Mayor. "This project would directly support the safety of our community and will enhance the economic prosperity of Borger as it is implemented. The City is desirous that the grant will be funded, and the project executed."

If funded, Panhandle Northern Railroad will provide the entire local grant match for the project in the amount of $2,164,256 and make initial payments to contractors and subrecipients totaling $4,328,511 over the course of the project.

The grant application was submitted by the City of Borger on June 20, 2018.

# AIR CARGO NEWS


## Delta, Korean Air to provide world-class cargo services with joint venture partnership launch

Delta Air Lines Cargo and Korean Air Cargo are launching new cargo cooperation in connection with the implementation of their Joint Venture partnership to offer world-class cargo services across one of the most comprehensive route networks in the trans-Pacific market. This comes after the recent implementation of the trans-Pacific Joint Venture partnership between the two airlines.

"The Delta and Korean Air JV means increased joint belly cargo capacity across the trans-Pacific as well as future co-location of key facilities, world-class reliability and the industry's best customer service," said Shawn Cole, Delta's Vice President – Cargo. "The partnership also means a host of new destinations with commercial and logistics solutions across Asia and North America for these important markets."

"We are excited to partner with Delta to create an unrivalled air cargo network across North America and Asia. This is bolstered by Korean Air's leading trans-Pacific air freight network, as well as Delta's nationwide schedule and sales network within the U.S.," said Samsug Noh, Senior Vice President, Head of Cargo Business Division, Korean Air. "I am confident that the partnership will further strengthen our capability to offer an unequalled expertise on all aspects of air cargo transportation."

The joint venture routes, on which Delta and Korean Air carried 268 million tons of belly cargo in 2017, will allow customers to work with either carrier to transport shipments across a broad network of flights. The expansive combined network formed by this partnership gives Delta and Korean Air's shared customers access to more than 290 destinations in the Americas and more than 80 in Asia.

The new joint venture builds on nearly two decades of close partnership between Korean Air and Delta; both were founding members of the SkyTeam global airline alliance.

Delta and Korean Air currently transport a diverse range of cargo products in the trans-Pacific market. From the U.S., semi-conductor production facilities, perishables and e-commerce shipments are some of the key products shipped to Seoul and throughout Asia. In the reverse direction mobile phones, automobile parts and other electronics are carried.

Earlier this year, Delta and Korean Air co-located into the new, state-of-the-art Terminal 2 at Seoul's Incheon International Airport. This means substantially reduced connecting times for both passengers and cargo, and one-roof warehousing is planned for the airport as well. As one of the world's largest airports, Incheon has among the fastest connection times in the region. It has been named among the best airports in the world for more than a decade by Airports Council International, as well as the world's cleanest airport and the world's best international transit airport by Skytrax.

We anticipate that Seoul Incheon will continue to grow as a major Asia gateway for Delta and Korean Air. From Seoul, Delta is the only U.S. carrier to offer non-stop service to three major U.S. gateways.

## Boeing's faith in air freight pays off with $18 billion in sales

Boeing Co. stood by the air-cargo market during a withering downturn a decade ago, and that decision is paying off handsomely now.

The U.S. planemaker has netted $18.2 billion in freighter sales and commitments at the Farnborough International Airshow, including deals for 48 of the cargo-hauling version of the 777 jet. The customers range from European package-delivery firm DHL to Gulf carrier Qatar Airways and Russian bulky-cargo specialist Volga-Dnepr Group. Boeing chief rival Airbus SE hasn't sold a single cargo plane at the show.

Boeing's freighter haul is well above the seven sales tallied for its popular 787 Dreamliner at the industry's largest trade expo this year. It's also more than the 34 passenger wide-body aircraft that Boeing and Airbus have sold in total this week, valued at $11.1 billion before customary discounts.

"We're not done," Boeing Vice President Randy Tinseth said with a laugh. He compiles detailed 20-year market outlooks for the Chicago-based manufacturer. "I think you could refer to it as unprecedented. It's a testament to the strong two, two and a-half years in the market."

One trigger for the cargo comeback is the growth in online shopping, which has transformed the retail experience, especially in emerging markets like China. After parking or scrapping freighters during the decade-long slump, many package carriers don't have enough aircraft on hand to keep pace with demand.

There's also unusual prosperity spanning the globe. By Tinseth's calculation, only four nations have shrinking economies: Venezuela, Yemen, Syria and North Korea. The passenger-jet market, meanwhile, is shifting toward a new generation of narrow-bodies that can take on longer routes than before and are a good fit for discounters serving the rapidly growing Asian market.

Freighters are one segment where Boeing—with three models, compared with one for Airbus—is better positioned than its rival to capture the growth. The U.S. company reckons that global air-cargo traffic will increase at an average pace of 4.2 percent over the next 20 years, exceeding the 2.8 percent annual rise in gross domestic product. During that time, it expects airlines to buy $280 billion in aircraft.


UPS has been adding the Boeing 747 8F to its fleet.


# New Maersk Line Transatlantic network

Maersk Line will be launching a new Transatlantic network to/from North Europe, within the 2M network.

The expected implementation will be by the end-of-August. Here are the rotations and estimated transit times for the key port pairs. Maersk Line will further share the named terminals, maps and cut-offs as they are confirmed.

| NORTH AMERICA - NORTH EUROPE | | | |
|---|---|---|---|
| TA1 | TA2 | TA3 | TA4 |
| NORFOLK | NEWARK | CHARLESTON | NEWARK |
| CHARLESTON | BALTIMORE | VERACRUZ | SAVANNAH |
| HOUSTON | NORFOLK | ALTAMIRA | PORT EVERGL. |
| NORFOLK | SAVANNAH | NEW ORLEANS | CHARLESTON |
| | NEWARK | MOBILE | |
| | | FREEPORT | |
| ANTWERP | BREMERHAVEN | LE HAVRE | ANTWERP |
| ROTTERDAM | FELIXSTOWE | ANTWERP | ROTTERDAM |
| BREMERHAVEN | ANTWERP | ROTTERDAM | BREMERHAVEN |
| | LE HAVRE | BREMERHAVEN | FELIXSTOWE |

TA1

| Departure | Arrival Antwerp | Rotterdam | Bremerhaven | Norfolk | N.Charleston | Houston | Norfolk |
|---|---|---|---|---|---|---|---|
| Antwerp | 34 | 1 | 2 | 12 | 14 | 19 | 25 |
| Rotterdam | 32 | 34 | 1 | 10 | 12 | 17 | 23 |
| Bremerhaven | 31 | 33 | 34 | 9 | 11 | 16 | 22 |
| Norfolk | 22 | 23 | 25 | 35 | 2 | 6 | 12 |
| N.Charleston | 19 | 21 | 23 | 32 | 34 | 4 | 10 |
| Houston | 14 | 16 | 17 | 27 | 29 | 33 | 4 |
| Norfolk | 9 | 10 | 12 | 22 | 24 | 28 | 34 |

TA2

| Departure | Arrival Bremerhaven | Felixstowe | Antwerp | LeHavre | Newark | Baltimore | Norfolk | Savannah | Newark |
|---|---|---|---|---|---|---|---|---|---|
| Bremerhaven | 34 | 1 | 3 | 5 | 14 | 16 | 18 | 21 | 23 |
| Felixstowe | 32 | 34 | 1 | 3 | 12 | 14 | 16 | 19 | 21 |
| Antwerp | 30 | 32 | 34 | 1 | 10 | 12 | 14 | 17 | 19 |
| LeHavre | 28 | 30 | 32 | 34 | 8 | 10 | 12 | 15 | 17 |
| Newark | 19 | 21 | 23 | 25 | 34 | 1 | 3 | 5 | 8 |
| Baltimore | 17 | 19 | 21 | 23 | 32 | 34 | 1 | 4 | 6 |
| Norfolk | 15 | 17 | 19 | 21 | 30 | 33 | 34 | 2 | 4 |
| Savannah | 13 | 15 | 17 | 19 | 28 | 30 | 32 | 35 | 2 |
| Newark | 10 | 12 | 14 | 16 | 25 | 27 | 29 | 32 | 34 |

TA3

| Departure | Arrival LeHavre | Antwerp | Rotterdam | Bremerhaven | Charleston | Veracruz | Altamira | New Orleans | Mobile | Freeport |
|---|---|---|---|---|---|---|---|---|---|---|
| LeHavre | 41 | 1 | 2 | 4 | 15 | 19 | 21 | 25 | 27 | 30 |
| Antwerp | 40 | 41 | 1 | 2 | 13 | 18 | 20 | 23 | 25 | 29 |
| Rotterdam | 38 | 40 | 41 | 1 | 12 | 16 | 18 | 22 | 24 | 27 |
| Bremerhaven | 36 | 37 | 39 | 41 | 9 | 14 | 16 | 19 | 21 | 25 |
| Charleston | 26 | 27 | 29 | 31 | 41 | 4 | 6 | 9 | 11 | 15 |
| Veracruz | 21 | 22 | 24 | 26 | 36 | 41 | 1 | 4 | 6 | 10 |
| Altamira | 19 | 20 | 22 | 24 | 34 | 39 | 41 | 2 | 4 | 8 |
| New Orleans | 16 | 17 | 19 | 21 | 31 | 36 | 38 | 41 | 1 | 5 |
| Mobile | 14 | 15 | 17 | 18 | 29 | 34 | 36 | 39 | 41 | 3 |
| Freeport | 10 | 12 | 13 | 15 | 26 | 30 | 32 | 36 | 38 | 41 |

TA4

| Departure | Arrival Antwerp | Rotterdam | Bremerhaven | Felixstowe | Newark | Savannah | Port Everglades | N.Charleston |
|---|---|---|---|---|---|---|---|---|
| Antwerp | 34 | 1 | 2 | 5 | 14 | 17 | 20 | 22 |
| Rotterdam | 32 | 34 | 1 | 4 | 13 | 16 | 18 | 20 |
| Bremerhaven | 30 | 32 | 34 | 1 | 10 | 13 | 16 | 18 |
| Felixstowe | 28 | 30 | 32 | 35 | 8 | 12 | 14 | 16 |
| Newark | 19 | 21 | 22 | 25 | 34 | 2 | 5 | 7 |
| Savannah | 16 | 17 | 19 | 22 | 31 | 34 | 2 | 4 |
| Port Everglades | 14 | 15 | 17 | 20 | 29 | 32 | 35 | 2 |
| N.Charleston | 11 | 13 | 15 | 17 | 26 | 29 | 32 | 34 |

# ZIM, Maersk Line and MSC enter a strategic operational cooperation on the Asia-US East Coast trade

The cooperation with the 2M Alliance creates a major upgrade of ZIM's Pacific services, with improved port coverage and transit time

ZIM Integrated Shipping Services and the members of the 2M Alliance, Maersk Line and Mediterranean Shipping Company (MSC), have announced a new strategic cooperation on the Asia – US East Coast trade.

Starting early September, 2018, the parties will operate together five loops between Asia and the US East Coast. ZIM will operate one loop and 2M will operate four loops, and the parties will swap slots on all loops.

The new cooperation offers ZIM's customers a more comprehensive product portfolio, with a wider range of direct calls in Asia and the US and faster transit time.

It is a vote of confidence by the two largest players in the industry, acknowledging ZIM's capabilities, reliability and strength. Furthermore, it will enable ZIM to achieve operational efficiencies and ensure Zim's ability to maintain a leading position on the trade.

The cooperation is scheduled to begin in early September 2018, subject to all needed regulatory approvals. The term of the cooperation is 7 years.



# Maersk Line adds new service to Middle East, India & Pakistan, Africa and the Far East

Maersk Line launched a second weekly transatlantic service from Montreal and Halifax. This improved all-water service to the Mediterranean will also conveniently connect Eastern Canada with destinations in the Middle East, Indian & Pakistan, Africa and the Far East. Five Maersk Line-operated 1800 TEU vessels will call at Montreal's Cast terminal and Halterm in Halifax, and then sail non-stop to the Mediterranean.

The first vessel of the MMX service, *Cap Portland* voyage 1806, sailed from Montreal July 27th and will sail from Halifax July 31st. Inland points in Canada connect with the MMX in Montreal through Maersk Line's agreements with CN Rail.

# PTA Luncheon Seminar CA Ports: Confronting challenges, gearing for growth

On June 27th, a PTA Luncheon Seminar was held in Oakland, CA and featured the executive directors of the Ports of Long Beach and Oakland. The seminar was moderated by John McLaurin, president of the Pacific Merchant Shipping Association.

(L to R) Lucia Zorrilla-Riese – Hamburg Süd, Elisa Ha – Zim, Joe Cutrera – Zim, John Lee – SW Logistics, Kyra Kindon – COSCO

(L to R) Anne Landstrom – Moffatt & Nichol, Kyra Kindon – COSCO, Barbara Dubbs – APL, Patrick Leung – APL, Elise Ha - Zim

(L to R) Susan Ransom – SSA Terminals, Luke Arie – JF Hillebrand, Marilize Smit – JF Hillebrand

(L to R) Andrew Hemp – Maersk, Robert Arp – California Maritime Academy





*(**HIGHS** – continued from page 19)*

Future' Exhibit this January, showcasing everything from unmanned delivery to drone based surveillance. Drones will also allow port engineers to perform inspections at a safer distance. With the use of "Augmented Reality", engineers using smart goggles can visualize port equipment in a whole new way. Design flaws and stress related wear and tear can be seen and documented without the need for physical inspection. Amphibious units could be employed to examine wharfs and side fenders, eliminating the need for divers to perform routine tasks, freeing them for more precise work.

Singapore began envisioning their "automated port" as far back as 2015. In a speech given to the Singapore Maritime Institute, Mr. Andrew Tan outlined "The Next Generation Port 2030". In his remarks, Tan noted that the continued consolidation of mega carriers and mega alliances made it impossible for Singapore to service their carriers in conventional ways. As a crossroad between Southeast Asia and the world, the MPA would build a mega port which could safely and efficiently bring capacity from 40 million TEUs to well over 60 million units.

## The Tusa Mega Port

Singapore is the world's busiest transshipment port, receiving 54,120 cargo ship calls last year. In order to handle the anticipated growth over the next 22 years, the MPA has adopted a construction plan worth 1.46 billion Singapore Dollars ($1.07 billion). The creation of a mega port in the Tusa basin will reclaim 387 hectares of land capable of handling 65 million containers by the year 2040. Phase one scheduled to be completed in early 2019 will continue Singapore's trend setting use of innovative technology. In the words of Andrew Tan, "We cannot just deliver world-class service to shipping lines in isolation. To stay relevant over the next 10, 20, 30, or even 50 years, we need to deliver world-class service to all our customers – which is why we have put in place the Next Generation Port 2030 initiative…As a vision and goal, the NGP 2030 will allow us to utilize a new generation of technologies to increase efficiency and productivity, intensify land-use in the port, improve safety and security, raise the level of sustainability …"

## Along for the Ride

We are entering a new era of port development. When it comes to technological innovation, ports today can no longer simply go along for the ride. Those who do not innovate are doomed to fall by the wayside. As transportation professionals, we need to confront our regional ports. We need to continue asking them, "What are you doing to stay ahead of the pack?"

*(**NICHE** – continued from page 20)*

to customize – not to mention a startup time measured in weeks – LxRoadFreight is $75 a month ($900 a year) per subscriber with a minimum of five subscribers. Additionally, LxRoadFreight is user friendly and can be up and "running within a day," with its out-of-the-box functionality, according to Golob. "They don't have to work with their IT department, they don't have to spend lengthy hours with professional services teams to get started. It actually comes out of the box ready to go," Golob noted.

On the pricing point of the CRM, Golob said from the beginning Lanetix wanted to make the entry level low enough for the truckers to be able to afford access.

## Time is Money

From the subscribers' viewpoint, the LxRoadFreight package is designed to provide CRM functionality for such back-office demands as shipper accounts, carrier accounts, trucks, drivers, dispatchers and a great deal more. It includes a wide array of bells and whistles including a mobile app that works with both Android and Mac iOS.

Ultimately, LxRoadFreight, like any CRM (or really any tech), has to be bottom line driven. Putting all the specific tasks handled by the CRM aside, it saves time (and improves accuracy) and as the old adage goes "time is money."

As Golob explained, "We [Lanetix] actually did a study with Penn State supply chain department. What we found is that sales people at freight brokers and freight forwarders spend more than half of their time doing back office processes. Entering data, scheduling meetings with co-workers, sending emails out, and not spending time with their customers. What the study really said was that the more time you can spend with customers, more likely you are to generate more revenue."

In a sense the software can double the size of a sales force by simply increasing efficiency and putting the emphasis back in sales and out of the back room processes. As Golob points out, "We've built a tool specifically for these domestic freight forwarders and brokers, where the workflows are prepackaged, so they can go in and they have an onboard workflow - where they need to onboard a new customer. They can simply add the customer to our system, and send them to the workflow right away. There's no customization or integration required."

Unlike many other cloud-based software logistic initiatives which were built around the shippers' visibility or other factors LxRoadFreight is squarely about the trucker and freight broker side of the equation. As Golob says, the system doesn't compete with TMS but rather partners with them.

But what does it all mean? Is Lanetix's LxRoadFreight really a logistics industry game changer? Putting Global 2000 IT in the hands of 20-person freight broker shops is as Golob says, "very powerful" and certainly may re-shape the digital aspect of the domestic trucking/freight brokering industry.