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2831 Talleyrand Ave., Jacksonville, FL 32206 Ph: (904) 357-3000 | Toll-free +1 800-874-8050 JAXPORT.com | info@JAXPORT.com

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JAXPORT MAGAZINE Editors: Whitney Croxton, Jeff Price Creative Director: Amy Klinkenberg

PHOTO CREDITS

JAXPORT Library, Mark's Photos, Ketterman Photography, Florida Harbor Pilots Association Patriot, G2Ocean, JEA, Shoreside Logistics, Florida Power & Light, Vac-Con

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PO Box 51000, Jacksonville Beach, Fl 32240 (904) 249-1719

PUBLISHER

Mike Clements: mike@portmediaservices.com

ADVERTISING SALES

Mike Clements: mike@portmediaservices.com Dave Cantwell: dave@portmediaservices.com

Strategic Value Media: sbreinberg@svmmedia.com

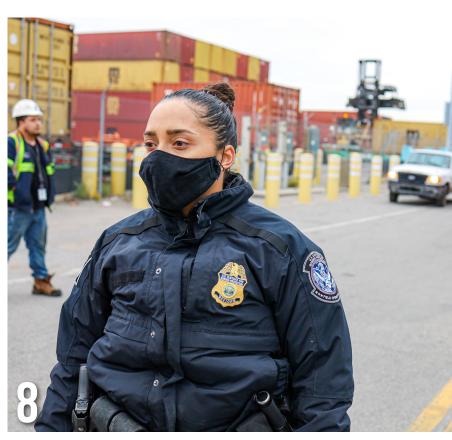
Brian Sieber: brian@portmediaservices.com

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BUILDING THE FUTURE TODAY

Based on detailed marketing, facilities, and economic analyses of JAXPORT's operations, the port's new Strategic Master Plan serves as a roadmap to success over the next five years.



Essential: Working the Front Lines of America's Economy

A new type of 'essential worker' was defined in 2020 – the men and women who make up the backbone of America's economy, the transportation and logistics professionals.



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Ultimate Guide to Warehousing in Jacksonville

Jacksonville's commercial real estate market is primed to support the growing needs for the industry's shift in distribution strategy.



Shifting Gears: What's Driving Today's Auto Industry Innovative technology and evolving consumer preferences are driving shifts in today's auto industry and the logistics behind it all.

TRENDING @ JAXPORT



Meet Lamar Avery, a crane operator and member of the International Longshoremen's Association, AFL-CIO (ILA) Local 1408 who spends his workdays – and sometimes nights – 130 feet up in the air inside the cab of one of JAXPORT's 100-gauge container cranes.

Read more about the 'People of the Port' on page 14.



Congrats to @JAXPORT COO Fred Wong on being named one of @JaxBizJournal's Transportation Innovators. Wong worked his way up in the port industry, turning a part-time job into a successful career leading operations at Florida's largest container port.

IN THE NEWS

JAXPORT and its port partners continue to make headlines – read more recent news beginning on page 54.

AMONG PIERS: JAXPORT HAS ROOM TO GROW

-FreightWaves.com

JAXPORT AIMS FOR MORE HOMEPORTS IN 2021

-Cruise Industry News

MILITARY VEHICLE IMPORTS HELP JAXPORT COMBAT COVID-19 STORM

—American Shipper

JACKSONVILLE CHALKS UP ANOTHER LNG BUNKERING FIRST

—Ship and Bunker



Florida Trend has named JAXPORT CEO Eric Green one of the state's most influential business leaders for the third year in a row.



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Check out JAXPORT's Cargo Blog at JAXPORT.com/cargo-blog





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A MESSAGE FROM JAXPORT Board Chairman



Jamie Shelton

When I look back on my four years on the JAXPORT Board, I can't help but think about how much the transportation and logistics industry, and life as we all know it, has changed in this short period of time.

As the pandemic unfolded throughout 2020, the world watched as the supply chain, including JAXPORT, adapted and evolved. During this crucial time, our port community delivered—keeping cargo moving, people working, and store shelves stocked.

Never before has the spotlight on the transportation and logistics industry been brighter. People can see in a tangible way how important our industry is to their everyday lives. Whether it's keeping paper towels stocked on local store shelves, or maintaining a strong supply chain to transport live-saving medical supplies to frontline health care workers, the work we do matters more than ever.

Consumer habits are changing. The pandemic fast-tracked what was already a rapid shift toward ecommerce. Our location in the heart of the fastest growing consumer market in the Southeast U.S., paired with unrivaled final-mile transportation infrastructure, uniquely positions Jacksonville to serve the logistics needs of today's consumer.

There is tremendous opportunity before us—and JAXPORT is ready. Under CEO Eric Green's leadership, the executive team created a customer-focused strategic plan that builds on the historic investments that have been made in our port over the last decade.

Our single biggest growth initiative, the harbor deepening project, will be completed through Blount Island next year, three years ahead of the original schedule. More than \$100 million in berth improvements, which will prepare Blount Island for deeper water, will be completed in tandem with the deepening. Phased yard improvements are also underway as we build the port of the future.

In the pages of this magazine, we'll introduce you to the most important part of our port community— the people who kept cargo moving in the midst of global crisis. You'll also learn how JAXPORT is ensuring investments made in our port create opportunity for customers and our community for generations to come.

Janie Aller

JAXPORT Board Chairman Jamie Shelton



SALES TEAM



ROBERT PEEK Director/General Manager, Sales & Marketing (904) 357-3047 Robert.Peek@JAXPORT.com



LISA WHELDON Director, Trade Development & Rail Cargo Specialty: Ocean Carriers/Rail/Containers (904) 357-3059 Lisa.Wheldon@JAXPORT.com



FRANK CAMP Director, NVO & Container Development Cargo Specialty: Containers/3PLs (904) 357-3075 Frank.Camp@JAXPORT.com



AISHA ECCLESTON Director, FTZ & Container Development Cargo Specialty: Containers/FTZ (904) 357-3070 Aisha.Eccleston@JAXPORT.com



RICARDO "RICK" SCHIAPPACASSE Director, Cargo Sales Cargo Specialty: Forest Products/ Breakbulk/Reefer/Liquid and Dry Bulk/LNG/ Latin America (904) 357-3071 Ricardo.Schiappacasse@JAXPORT.com



ALBERTO CABRERA Director, Cargo Sales Cargo Specialty: RoRo/Puerto Rico/Cruise (904) 357-3094 Alberto.Cabrera@JAXPORT.com



JAMES "JIM" BUTCHER Cargo Sales Business Consultant Cargo Specialty: High & Heavy RoRo / Containers (516) 493-1935 James.Butcher@JAXPORT.com



CAROLYN STRIGGLERS Sr. Business Analyst & Service Provider Liaison Cargo Specialty: Warehouse/Trucking/Drayage (904) 357-3057 Carolyn.Strigglers@JAXPORT.com

FOR CUSTOMER SERVICE & GENERAL CARGO QUESTIONS: +1 (800) 874-8050 · (904) 357-3030 · Info@JAXPORT.com



WORKING THE FRONT LINES OF AMERICA'S ECONOMY

By Laura Jane Pittman

ES·SEN·TIAL | \ I-'SEN(T)-SHƏL \: OF THE UTMOST IMPORTANCE: BASIC, INDISPENSABLE, NECESSARY

It has been a year since the first official COVID-19 case was reported in the U.S. Within a matter of weeks, our way of life changed as the nation braced for a global pandemic. Florida Governor Ron DeSantis – like many others across the nation - declared a state of emergency followed by a stay-at-home order, closing many businesses and crippling others.

As the nation's spotlight was shown on empty store shelves, a new type of 'essential worker' was defined – the men and women who make up the backbone of America's economy, the transportation and logistics professionals. Never before has our industry faced this widespread extent of challenges and fast-paced shifts in operations. And never have its everyday heroes – from harbor pilots and longshoremen to warehouse personnel and truck drivers – been more instrumental in keeping the country and economy going.

"Every day, billions of products travel millions of miles to reach their final destination on time. Whether it is much-needed medical supplies or a pair of boots for our military members, logistics plays an enormous role in delivering goods that we rely on for our jobs and our families," said Indie Bollman, Vice President of Organizational Development for Trailer Bridge, a logistics company based in Northeast Florida. "The shortages experienced early in the pandemic were felt in some way by most, but logistics firms kept supplies and goods moving and continued at the front lines when suppliers and manufacturers resumed full production."

EXPANDING THE ESSENTIAL DESIGNATION

The essential worker designation was an important one, especially early on in the year, but the initial definition was limited, and certain roles slipped through the cracks among them harbor pilots,
the front-line protectors of the
nation's waterways. Florida has
approximately 100 highly trained
and skilled harbor pilots who guide
vessels and man channels for the
state's 14 deep-water ports - a
critical service to the state at no
expense to the taxpayer as vessel
handles alone are what support
their stations and operations.

In what hindsight revealed as a timely stroke of genius, the Florida Harbor Pilots Association (FHPA) had recently hired its first-ever executive director in October of 2019. Laura DiBella, the new leader of FHPA. had a background that included economic and business development, community relations as well as port experience - all of which proved to be extremely beneficial as she navigated the organization through this extraordinary situation. In an intense trial by fire, DiBella spent the initial critical days and weeks of the pandemic getting the state's harbor pilots designated as first responders so they would be allowed to continue their work.

"Our pilots are truly the 'first responders of the blue economy,' and explaining what they do and getting them the appropriate designation took vital coordination and partnerships between the U.S. Coast Guard, Florida Department of Transportation and other agencies," said DiBella. "What people also don't realize is that while there are 24 states with pilotage, only Florida and Alaska rely very heavily on the cruise industry. There were instantaneous changes to what our pilots were handling as the cruise industry ground to a halt and cargo slowed."

In addition to the initial confusion about whether they would be allowed to work amid a dramatically changing workload, harbor pilots needed to obtain appropriate PPE and testing, particularly for situations like boarding cruise ships that had known COVID outbreaks. With a limited number of trained professionals, this segment of the industry couldn't afford to get sick and have personnel shortages.

"It was a bit of a nightmare and a scary time for them with few guidelines, and I was begging state agencies who had no idea what a harbor pilot even was to try to get the necessary resources. We ended up essentially translating what the CDC was recommending for health care workers and tweaking it for maritime," recalled DiBella.

KEEPING CARGO FLOWING

Meanwhile, at ports around the country, cargo operations were experiencing their own pandemicrelated dips and challenges. Manufacturers shut down, sourcing markets in other parts of the world slowed causing issues in product availability, and a no sail order issued by the CDC docked cruise ships.

Diversification across trade lanes and cargo types served the Jacksonville Port Authority (JAXPORT) well, helping to temper the pandemic's impact. The port's container volumes were down just 5% from 2019, which was a record year for container volumes at the port, with more than 1.27 million TEUs moved in the fiscal year 2020. An increase in U.S. military vehicle movements helped to offset the industry-wide decline in commercial shipments of autos due to the temporary shutdown of auto manufacturing over the summer.

"I am proud that our team was able to avoid layoffs during the pandemic – together, we cut spending and budgeted for the expected revenue loss to save jobs," said JAXPORT's Chief of Administration and Corporate Performance Linda Williams. "Our priority was making sure everyone felt safe. We implemented disinfecting procedures for our office spaces and transitioned to a team approach to reduce spread in case of an outbreak."

JAXPORT was among many organizations that placed a high priority on the safety and flexibility of its critical workforce. Trailer Bridge quickly implemented a business continuity plan that offered flexible working situations for its employees.

"About half our employees moved to work from home, some departments



- FEATURE -

dispersed between existing offices, and those who had to continue to show up – in such areas as vessel operations, maintenance, drivers and terminal operations – did so and made it happen for the rest of us," said Bollman. The company also continued home and offices in suburban areas shut down, those trucks had to change their fleet management and routes, with fewer demands in high-rise areas that required onestop and more pickups in multiplestop neighborhoods. Also, the huge



"We are incredibly proud of the hard work of our members, who have been working on overdrive for months."

- Alix Miller, Florida Trucking Association

paid mental health counseling for those needing extra support and rolled out an upskilling initiative to provide employees with growth and development opportunities.

While some workers were adjusting their office environment to cope with the pandemic, the impact was felt very differently across the trucking industry. For example, while consumable goods - such as food items and sanitation products (including toilet paper) – were running beyond capacity in March and April, the need for fuel dramatically decreased when people were no longer commuting due to shelter-inplace mandates and stay-at-home orders, according to Florida Trucking Association Vice President Alix Miller. Auto transport companies were hit similarly hard, and companies with large fleets servicing hotels, restaurants, schools, and stadiums were also affected by closings.

The essential role of drivers was felt most acutely in ways that most people may not think of, said Miller, such as waste management and recycling. As people worked from increase in ecommerce gave rise to rapid demand for first-mile/lastmile deliveries.

"There were so many regulations that had to change, emergency declarations that we had to track, and exemptions relating to specific products. But fortunately, Florida is always ahead of the curve with this process, due to having to manage freight before, during, and after hurricanes," said Miller. "As soon as an emergency is predicted, our communication processes jump into action. Companies immediately mobilized and adjusted to serve and deliver to Floridians and all Americans. We are incredibly proud of the hard work of our members, who have been working on overdrive for months."

In fact, across every facet of transportation and logistics, the human element became the obvious priority – the people and workers who were tasked with keeping things running.

"This is a very fast-paced industry, and the pandemic has brought out an awareness of how much we all really need each other," said Bollman. "This year made it clearer than ever how truly 'essential' logistics and transportation professionals are to keeping our lives and the global supply chain moving."

LOOKING AHEAD WITH LESSONS LEARNED

While many aspects of the industry have bounced back from the initial slowdowns, some effects are still being felt. While the St. Johns Bar Pilots saw a downturn in ship calls due to the pandemic. JAXPORT's diverse cargo mix helped sustain operations as compared to stations that rely heavily on the cruise industry, such as the Key West Bar Pilots and Canaveral Pilots, who have lost most of theirs - to the tune of 98 percent and 85 percent, respectively. Until cruise restrictions are lifted completely, said DiBella, this will continue. It is hard to predict at this point when and how the pandemic situation will ultimately end. Companies and organizations continue to navigate uncharted waters.

In the wake of COVID-19, education has proven vitally important – whether educating the community on the important and essential roles of industry workers, educating companies on how to be more efficient moving forward, or educating the future industry workforce on what was learned and what to expect. First-hand knowledge of how to navigate a world-wide interruption can be translated into valuable institutional and organizational lessons.

JAXPORT has used its experience to reevaluate certain departments



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and incorporate opportunities to better position employees for the future in the event of these types of challenges. "In crisis management, remaining proactive and being able to respond quickly is key," said John Taylor, the port's Director of Human Resources. "The pandemic has placed a premium on training strategies that increase crosstraining. We have created several new operational jobs with increased breadth versus depth to provide more integration."

Real-world examples are also being applied to the classroom and incorporated into the curriculum of logistics educational programs, according to Johnny Bowman, Jr., Professor of Logistics and Distribution at Florida State College of Jacksonville's School of Business & Professional Studies.

"The case studies of our business partners that occurred during the pandemic will provide valuable experience for our students and will potentially lead to the development of best practices that could be implemented in future business operations," said Bowman.

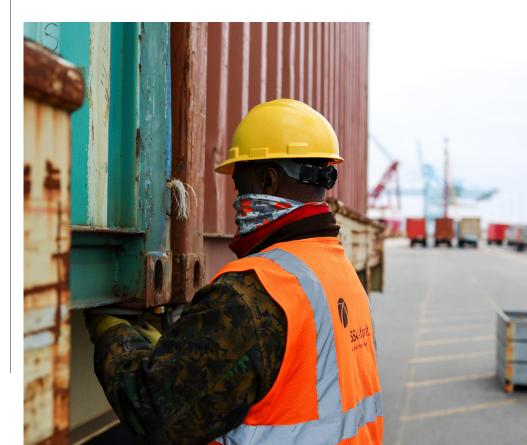
In Jacksonville schools and programs across the country, COVID-related data and analysis methods are being added to supply chain management courses to address such issues as PPE distribution and supply plan creation. Increased emphasis is being given to big-picture issues such as manufacturing, forecasting, and inventory management. Specialized skills such as supply chain mapping and risk management are more important than ever. The past year also highlighted the need for future generations to populate the industry, and employers are reaching out to let institutions know of increasing demands. For example, trucking is facing the retirement of a large segment of the workforce, with not nearly enough people to take their place. FSCJ is in contact with several major logistics companies who desire to immediately hire its students, said Bowman.

With the spotlight on the supply chain's role in keeping the American economy afloat, there is no longer any dispute about the industry's essential nature. Experts hope this awareness will encourage future students to learn about and consider the myriad different career opportunities throughout the field.

"One of the main things we learned from this whole experience is how much credit the maritime industry deserves and what a tremendous responsibility they have played in the economic environment," said DiBella.

Miller agrees. "The 83,000-plus trucking companies in Florida know that protecting the supply chain is incredibly important, especially with the ge ographic challenges of the state. Until now, many Floridians haven't seen or recognized how vital ports, air, rail, and trucking are to their daily lives. It is complex choreography working backstage, and we are grateful for our partnerships with all the other sectors."

As the dust settles on what was a truly extraordinary year for transportation and logistics, there is widespread agreement among industry executives that with 2020 forcing companies and organizations to rethink how they do business, many of the resulting changes may ultimately be longterm and for the better. Everyone also agrees that there is hope that the new year might bring a return to normalcy, albeit a new normal, for the most essential facet of all businesses – the human element.



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PEOPLE OF THE PORT

In a normal year, most people outside of the transportation and logistics industry don't think about how the items we use every day get to our store shelves. But 2020 was different.

Through the disruption and uncertainty, the people of our port community kept it all moving. Turning global uncertainty into the supply chain's time to shine.

Jacksonville's maritime workers are the unsung heroes of the pandemic. Working long days, nights, and weekends to keep cargo moving and store shelves stocked. With their dedication and perseverance JAXPORT ended 2020 on a high note supporting our partners, meeting consumer demand, keeping container volumes and revenue steady, and even achieving growth.

Meet a few of the men and women from Jacksonville's transportation and logistics industry.

JIMMY YU SUPERVISOR OF MAZDA MITSUBISHI ACCESSORY PROGRAM, AMPORTS, INC.

Jimmy keeps operations running smoothly at auto processor AMPORTS with an eye for quality. The experienced workers at JAXPORT keep autos rolling and ensure our port remains one of the top U.S. ports for vehicle handling.

ANGEL MUSE INVENTORY CLERK JAXPORT

Angel helps keep JAXPORT's cranes operational by ensuring all the tools, products and equipment our crane technicians may need are readily available.



CAPTAIN JOHN REDMAN DOCKING PILOT MCALLISTER TOWING

Captain Redman has been helping vessels dock at the Port of Jacksonville for more than 20 years – following in his dad's footsteps as a Docking Pilot. His role requires a deep understanding of the waterways to keep vessels moving efficiently.

VIVIAN PATTERSON TERMINAL SUPERVISOR SSA ATLANTIC

Vivian is helping shippers increase efficiencies and find cost savings with what the company calls a 'peel off' strategy. It's an approach that combines her 40-plus years of experience working in all aspects of port operations and a personalized approach to customer service. Read more at JAXPORT.com/Cargo-Blog.

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CHARLES SPENCER EXECUTIVE VICE PRESIDENT EMERITUS OF THE SOUTH ATLANTIC AND GULF COAST DISTRICT INTERNATIONAL LONGSHOREMAN'S ASSOCIATION (ILA)

For nearly 60 years, Charles has been a dedicated member of the ILA. Today, he represents the men and the women who are essential to efficient port operations across the Southeast U.S.

6 ECONIMERCE SUPPLY CHAIN DISRUPTIONS YOU CAN'T IGNORE

By Conrad Winter

In the movie Groundhog Day, Bill Murray plays a TV reporter who is forced to relive the events of a single day over and over and over, finetuning his actions with every iteration until he becomes his best self.

The state of ecommerce supply chains is much the same way today. It was a wild and fast ride before the trade war upped the ante and the pandemic opened the floodgates of demand. Shippers, 3PLs and final-mile delivery providers are figuring it out: developing new best practices and adapting quickly to rise to the occasion.

Frank Camp, Director, Non-Vessel Operations & Container Development at JAXPORT, is at the center of the evolution underway. "The move towards ecommerce has accelerated and it's only going to increase," he said. "Once everyone has a chance to collectively catch their breath, you'll start to see some best practices adopted with regard to ecommerce logistics and maybe even some new changes come into play."

Consumers are now driving new disruptions—and our demand for free and fast delivery, dependability and easy returns is here to stay. The stars of ecommerce supply chains are the businesses who successfully surmount six distinctive disruptions.

LABOR: A BIG DEMAND FOR HANDS

One of the biggest disruptions caused by ecommerce supply chains is etailers' need for people to pick products from shelves, pack them and prepare them for delivery to customers.

Camp describes the changes he's seen at distribution centers (DCs)

around JAXPORT. "At a traditional distribution center, the container arrives, the labor in the building strips out the container and puts the goods on shelves where they wait to be shipped out to the store. In an ecommerce building, you've got the container coming in and labor stripping it out, putting it on the shelves, and then many, many dozens, if not hundreds of people - depending on the size of the operation – move goods around constantly."

Re

The demand for hands brings a number of challenges. First is having a labor source that is cost effective and readily available. This is driving many companies to locate DCs near major population centers. A second challenge is ensuring they have adequate staff to meet surges in orders. This pressure drives many companies to partner with 3PLs because it enables them to draw on a steady labor source for ecommerce fulfillment.

"Northeast Florida offers ecommerce shippers a deep and talented workforce – with a labor force more than 845,000 strong," said Camp.

SPACE: IT'S THE PLACE ECOMMERCE FULFILLMENT OFTEN FALLS SHORT

Ecommerce fulfillment requires more warehouse space than traditional DCs serving wholesale operations. According to Scott Weiss, Vice President of Business

"64 percent of consumers want free shipping and they want same day, next day or second day."

-Richard Higgins, 1A Auto

Development for Port Logistics Group, a 3PL heavily involved in ecommerce fulfillment, DCs today need more space, not just for pick lines, but also to store products lower so pickers can grab them easily. "We see many importers with their own warehouse and they're in trouble because they're full," he said.

As the size and prevalence of ecommerce supply chains has grown, the demand for warehouse capacity has skyrocketed. In Northeast Florida, more than 6 million square feet of ecommerce leasing has happened over the past three years, according to Jacob Horsley, Senior Director of Cushman & Wakefield.

DC SELECTION: GO WHERE THE CUSTOMER IS

Meeting ecommerce customers'

expectations of free and fast delivery is driving the supply chain disruptions of recent years. The shift from getting goods to stores to getting them to consumers' homes is directing decisions for where to locate distribution centers for companies like 1A Auto, an entirely ecommercebased auto parts supplier with a large market in the Southeast US. The company decided to open a DC in Jacksonville, Florida to be closer to their customer base.

1A's Head of Logistics, Richard Higgins explains: "Sixty-four percent of consumers want free shipping and they want same day, next day or second day. In order to do that from a logistics perspective and do it cost-effectively, we need to have facilities that are relatively close to the consumer.

LAST MILE: YOUR SMALL PARCEL PARTNERSHIPS ARE A BIG DEAL

Last mile delivery is a major cost consideration in ecommerce. Etailers' ability to negotiate rates directly impacts the profitability of their business. That's because the free delivery customers expect is paid by the seller. Ensuring sort centers are close to the customer base is key to qualifying for low zone rates.

Small parcel rates were a major reason for 1A's decision to locate a DC in Jacksonville. "By being in Florida and delivering to Florida, we're going to be zone 2, so we have a massive reduction in what our cost per package is going to be," Higgins said.

"The customer is going to be extremely happy with the service, and we're going to be extremely





happy with the fact that our cost per package will go down dramatically."

REVERSE LOGISTICS: DON'T LET RETURNS COME BACK TO HAUNT YOU

Returns used to be easier in brick and mortar retail. Stores would get the products back at the counter, they could be inspected and returned to shelves, and customers would be credited on the spot. Not so in ecommerce - returns are complex, costly and strongly tied to customer satisfaction. "It's where you can lose a customer for life," Weiss said.

Today's consumer expects the returns experience to be as easy as buying online—that means a fast confirmation and credit. That dials up the pressure on etailers. Processing returns efficiently requires additional space and workers as well as communication between different groups who receive returns, check for damage and settle charges. Handling the sheer bulk of returns is the main challenge. Weiss says 30 percent of online purchases are returned. "Many people order two different sizes and then they return the one that doesn't fit. That's the hidden cost of ecommerce," he says.

Etailers typically pay for shipping, but that's only part of the overall cost of handling returns which can show up in bulk unexpectedly. "You don't get a notice that it's coming," Weiss said. "We have a customer that does 15,000 ecomm orders a day and we could get 4,000 returns that day."

OCEAN TRANSPORT: E-FRIENDLY PORTS LEAD THE WAY

The disruptions brought by ecommerce supply chains include rethinking ocean strategies. The ideal scenario gets cargo to a DC that is final-mile-shippable to customers. As a result, ecommerce companies like 1A are favoring all-water routes from Asia, through the Panama Canal to ports like JAXPORT. This strategy allows them to set up advantageous DCs close to port and final-mile sort centers that are within striking distance of their largest customer bases.

This turns on its head the long-held assumption that sailing from Asia to Southern California is always fastest. But according to Higgins, the extra week in transit is well worth it. "If you're buying properly and you're timing your receipts, it's significantly more cost effective to utilize the all-water services to the East Coast as opposed to going through the West Coast."

1A's planned move to JAXPORT is part of a bigger trend seen by ports like JAXPORT up and down the Eastern seaboard. "This is a totally different supply chain. This is an import distribution to DC right to my front door," Camp said. "Jacksonville aligns very well with large sort centers and the infrastructure in place to facilitate final delivery more quickly than other ports on the East Coast."



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JAXPORT UNVEILS ITS 2020-2025 STRATEGIC MASTER PLAN

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evolution of JAXPORT.

At the 2021 State of the Port address JAXPORT Chairman Jamie Shelton and CEO Eric Green unveiled a Strategic Master Plan that will serve as the port's roadmap to success over the next five years. It builds on the success of the previous Strategic Master Plan focused on infrastructure.

Now that those projects are complete, or nearing completion,

the port can focus on, "commercialization and making the most of the infrastructure dollars that have been put in place, attracting new business and fulfilling our mission of growing jobs and being the economic engine for the northeast part of the state," said JAXPORT Chief Financial Officer Beth McCague.

This new plan is designed with the success of the port's customers in mind. It builds on the opportunities



Beth McCague, JAXPORT CFO

created by the completion of the projects outlined in the previous plan including deepening Jacksonville's harbor to 47 feet and improving port facilities to accommodate the world's largest ships—and focuses on growing JAXPORT's

revenue and volumes.

Developed by the port's senior leadership team with support from international maritime consultant Martin Associates, the plan is based on detailed marketing, facilities, and



economic analyses of JAXPORT's operations. It includes five aspirations and ten goals, anchored by four key strategies.

In the story ahead, we sit down with the architects behind JAXPORT's strategic vision to dive deeper into the new plan and how it will position Jacksonville as a global gateway for shippers for years to come.

EXPAND CONTAINER BUSINESS

Florida's 22 million-plus residents make the state the third most populous in the U.S. and one of the top consumer markets in the Southeast. Those consumers - and the hundreds of millions of visitors coming to the state each year - will need goods, many of which arrive by containers.

"Over half of our annual revenue is derived from our container business," says Robert Peek, JAXPORT Director and General Manager of Sales & Marketing. "And some of our largest capital investments are intended for the container business because we see a tremendous opportunity to grow this segment."

The strategic plan calls for new trade lane offerings. JAXPORT is focused on adding Trans-Pacific



In addition to new services, the port sees opportunity for redirecting Florida-bound cargo. "There's tremendous opportunity for Florida bound cargo," explained CEO Green.

JAXPORT

Marketing

"We see almost a million additional containers that enter into the State of Florida from other ports outside our state."

Growth in ecommerce and the related shift in distribution strategies for beneficial cargo owners (BCOs) will also play an important role for this cargo line.

EXPAND VEHICLE CAPACITY BY ACQUIRING LAND

JAXPORT is one of the top vehiclehandling ports in the nation and the demand for auto processing space in Jacksonville continues to grow, according to Peek. A top strategy in the new plan, JAXPORT is focused on strengthening its market position in vehicles and other rolling cargos, leaning into its long-standing reputation for excellence for autos.

"We want to keep our position as one of the largest vehicle processing ports in the U.S. marketplace. And in order to do that, we need to be able to assist our auto processors in their turn times for vehicle dwell times," said McCague. "But in addition to that, we're going to need more land. So strategically, acquiring more land is a huge emphasis for us. Because no matter how much our auto processors really like doing business here, if we don't have enough room for them, we won't be accommodating their needs."

Today, auto processing tenants occupy more than 313 acres of auto storage at JAXPORT, with the majority of vehicle imports originating in Japan, Mexico and Germany and strong exports to the Caribbean, Africa and the Middle East.

Land for expansion is key to the port's ability to grow the auto sector said Green. "We're a desirable location. One of our biggest goals is to add at least 300-400 acres in the near future." The acreage will offer the space needed for JAXPORT to support the needs of its auto customers as well as other lines of business.

The port is looking to acquire waterfront and/or near waterfront property near its terminals to make room for growth over the next two decades and beyond. It's one of the four key strategies in the new plan.

EXPAND BREAKBULK BUSINESS LINE

Leaning into its model for diversification and rounding out the top strategies in the new plan is a focus on breakbulk cargos. Paper and pulp volumes have grown steadily through JAXPORT since 2015, said Green.

"We believe that breakbulk — both forest products and other cargo types — are very important to us. We want to make sure we're providing the facilities those types of customers need," said McCague. Acquiring additional land is also a key part of the growth of this commodity group. The plan also calls for a refresh of the port's current facilities as well as new space to handle forest products, JAXPORT's largest breakbulk cargo commodity.

JAXPORT is well-suited for breakbulk with on-dock warehousing and rail service by two Class 1 railroads, CSX and Norfolk Southern and regional line Florida East Coast Railway as well as close proximity to major interstates. Northeast Florida also offers a skilled workforce experienced in handling all types of breakbulk cargoes.

TECHNOLOGY, FACILITIES & CORE COMPETENCIES

A hot topic among industry experts is the technology behind today's supply chains as well as the sharing of data to increase efficiencies. "What we're



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SSAAtlanti A Carrix Enterprise The Total Cargo Solutic WWW.ssamarine.cor hearing from our customers and constituencies of all types — from shipping agents to shippers — is they want visibility into cargo," McCague says. "So we will be working over the next several years to make sure we remain competitive in this important space."

According to McCague, the organization is taking a three-pronged approach to technology. The first is giving more information and visibility to the shippers of the cargo itself. The second is providing technology to truckers and other people visiting the port that speeds gate entry and exit while increasing port security. The third is supporting port workers in how they're doing their jobs and maintaining JAXPORT's equipment and facilities.

JAXPORT is also anticipating both the land and service needs of future tenants in the new plan. "We want to be a landlord that is easy to do business with," McCague explains. "We have good facilities here and we want to make sure that as a good landlord, we're always keeping the facilities in states of good repair and operating in a safe manner."

Making the best use of all portowned property is also a strategic goal. By making full use of all land resources the port says it can provide tenants the opportunity to expand their businesses and find continued success in Jacksonville.

Building on JAXPORT's core competencies in the areas of brand management, employee development, financial reporting and safety are also part of the 2020-2025 strategic plan. This will include a focus on environmental stewardship with the development of a longterm resiliency program – balancing terminal improvements and repairs between capital limitations and environmental impact. Pleasure travel serves an important business role for JAXPORT. According to Peek, the service line contributes to the diversification built into the Strategic Plan. "It's containers, its vehicles, it's breakbulk cargos, and it's cruise. We're leaning into this diversification because it served



"A lot of plans just go up on the shelf and are never executed-but that's not the case here. We are embracing this opportunity to take JAXPORT to the next level."

- CEO Eric Green

REBUILD CRUISE BUSINESS LINE

Prior to the pandemic, JAXPORT had a renewed focus on its cruise business line, signing a long-term agreement to offer cruise service from Jacksonville. This included enhancements to terminal and traveler experience positioning, all which will help the port to shine once cruise service resumes.

"We're eager for the cruise business to return. And we are in a terrific geographic location for the cruise business. People can drive here in just a few hours from all over the southeast to get onboard the ship," shared Peek.

While this key goal is dependent on the cruise industry's return following the pandemic, JAXPORT is looking to add to another cruise call to bring more tourists to the region. Currently, Carnival Cruise Lines' 2,056-passenger Carnival Ecstasy is homeported in Jacksonville. us so well in the past. And we think it's a smart strategy going forward," he says.

EMBRACING OPPORTUNITY

"A lot of plans just go up on the shelf and are never executed but that's not the case here. We are embracing this opportunity to take JAXPORT to the next level," said Green. "This plan was developed with our customers in mind—ensuring we continue to meet their needs while maximizing the opportunities our deepwater seaport creates for the people of Northeast Florida."

The 2020-2025 Strategic Master Plan will lead JAXPORT and Northeast Florida into the future, chartering a clear path for the port's growth strategies to support an ever-evolving supply chain.

Find full details of JAXPORT's 2021 Strategic Master Plan at JAXPORT.com/Strategic-Plan.

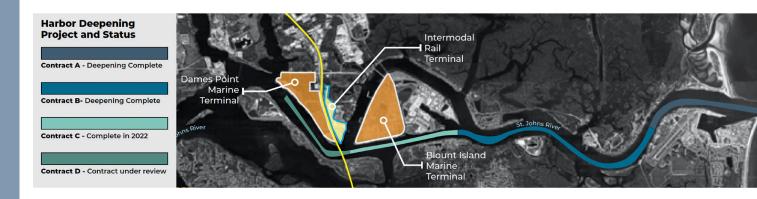


HARBOR DEEPENING AHEAD OF SCHEDULE

The project to deepen the Jacksonville shipping channel to 47 feet is expected to be complete in 2022 – three years ahead of schedule. The project is JAXPORT's single biggest growth initiative – making way for the larger cargo ships transiting the Suez and Panama canals to deliver cargo the port.

The deepening project includes construction of a new turning basin adjacent to the Blount Island Marine Terminal that will allow larger vessels to turn at the berth. On track to be completed by the end of 2021, the turning basin will be slightly larger than the existing turning basin at the port's Dames Point Marine Terminal, which routinely turns vessels of 1,100 feet (335.3 meters) in length. The Jacksonville deepening project is the first project of its kind in the United States to include funding from a private business. Funding sources include the federal government, the State of Florida, the City of Jacksonville, JAXPORT, and private partner SSA Atlantic.

In conjunction with the deepening, by 2022 JAXPORT will have completed rehabilitation of berths 33, 34 and 35 providing 2,700 linear feet of deep-water berth, enabling Blount Island to simultaneously accommodate two post-Panamax vessels. Port partner SSA Atlantic is also investing in its international container terminal at JAXPORT's Blount Island Terminal to increase efficiencies and grow to handle more cargo in the years to come.





SHIFTING GEARS: what's driving today's auto industry

By Lori Musser

Innovative technology, evolving consumer preferences and new regulations are driving a whole new auto industry.

Louis Yiakoumi is a UK-based auto industry expert, known as the founder of Automotive Logistic Group and now Chief Connector at LConnect. He says while COVID-19 may have "exacerbated the need for cost savings and cash flow management," there are two trends that stand out for autos looking forward: digitization and the electrification of vehicles.

Vehicle digitization can encompass: connectivity for social media, music and apps while driving; predictive maintenance; and driver data security, among other advancements. Today's drivers demand these features. Similarly, the auto industry's supply chain is undergoing a digital transformation expected to engage customers, collect and use data for better service, and enhance production.

While a connected car is only as good as its

Louis Yiakoumi, LConnect excited that electric vehicles (EV) cut greenhouse gas emissions, and are setting goals that may be tough to achieve through improvements to internal combustion engine (or ICE) vehicles alone.

input data, digitization is an important step for automotive logistics and will contribute to cost savings and efficiencies. And the electrification of vehicles will definitely change automotive supply chains and logistics, according to Yiakoumi.

ELECTRIC VEHICLES

Governments around the world are

EVs will come to the rescue, in time: CarandDriver.com says Americans are keeping their cars more than ten years, and the U.S. and its love affair with large SUVs and pick-up trucks will slow mass adoption. The switch will accelerate when EV vehicles make financial sense to buyers, and it will be especially speedy in England and France when they prohibit the sale of fossil-fueled vehicles in 20 years.

"Although the trend to electric vehicles is encouraged by government legislation...car buyers will grow to love electric vehicles for the speed, total cost of ownership, and technology. So while the growth seems rather slow at the moment, I think the take up will speed up very quickly," said Yiakoumi.

Auto industry supply chains for internal combustion engine components will be impacted as well. EV motors have a handful of moving parts, and don't need complex transmissions, fuel systems, fancy gearboxes or exhaust systems. They do need battery packs that are sometimes being made by the OEMs or newcomers to the automotive supply chain. The entire auto industry will have to be flexible to continue to flourish.

The need for batteries and electric motors and transmissions will

— FEATURE —

undoubtedly rise and some analysts speculate the relative similarity of electric motors may encourage OEM consolidation, or force automakers to compete based on other attributes.

The EV batteries themselves may challenge the transportation industry. They are relatively heavy, may have to be treated as hazardous goods, and be kept with enough charge to go from the factory to the final location, said Yiakoumi.

"Toyota has been a pioneer in this arena, starting with the launch of the Prius Hybrid more than 20 years ago, which paved the way for an ever-expanding lineup of alternative fuel vehicles," said Casey Gunnell Jr, Group Vice President of Parts Supply and Distribution at Southeast Toyota, an auto processor at JAXPORT's Talleyrand Marine Terminal. Casey Gunnell Jr. Southeast Toyota

Gunnell added, "That said, the fact remains that the prevalence of electric vehicles remains fairly low with electric vehicle registrations at less than 2% of total industry. News about the emergence of electric vehicles still greatly outnumbers the customers actually demanding electric vehicles, with many unanswered questions concerning battery technology, charging infrastructure and speed, and even the ability of the grid to handle greater demand."

Steve Taylor, CEO of auto processor AMPORTS, said the company is getting ready for the EV wave that will happen as battery technology

> improves and range anxiety falls. "Right now, we handle many hybrids but fully electric vehicles are still a small percentage for us in Jacksonville, but we see it coming. Every day we receive requests to ask what capabilities we have," said Taylor.



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Volkswagen Group of America is in the midst of a push toward electrification. "We have made a huge commitment to invest. We're putting our future in electric vehicles, and are placing great emphasis on powertrain," said Mark Boucher, Director of Vehicle Logistics with Volkswagen Group of America, Inc. Two key considerations that may affect distribution, he said, are that EVs must always maintain a state of charge, and that, in general for their size, they are a heavier product.

With good planning, accommodating the idiosyncrasies of EVs will be all in a day's work. For example, auto processors are used to jumping ICE vehicles. "The electric is a little more complicated because we have to charge for a period of time and then evaluate why it lost its charge – was it a battery issue or just something left turned on? This is not a major adjustment issue," said Taylor, noting AMPORTS will install charging stations at JAXPORT to accommodate demand, as it has in its other port locations. Taylor expects that the issue of varying charging cords and stations will eventually sort itself out as industry standards are established, just as they have been with, for example, fuel nozzle dimensions.

"You may eventually see charging pods and a circle of cars around them. Today, we park [ICE] vehicles in a line. As we move forward there will be some minor facility changes," said Taylor.

OTHER IMPORTANT TRENDS SHAPING THE SECTOR

The large vehicle trend is important too, said Taylor. "SUVs and pick-up trucks are on the rise. Our latest projection is that they will be 80% of the market (including crossovers). Only five years ago, it was closer to 50 percent."

This segment of the auto market calls for more port-installed accessories

like tow hitches, running boards, roof racks or even iPad holders, according to Taylor. "That's good for business, but the downside is that the bigger vehicles take up more space – they are roughly 10 percent bigger so we need 10 percent more yard space," he said.

The space requirement is an issue all along the supply chain. "A vessel rated for 3,000 vehicles may only be able to carry 2,800 SUVs," said Taylor.

"The continued shifts from passenger cars to larger utility vehicles especially become a capacity issue on trains and trucks," Boucher added.

THE CALL FOR ACCESSORIES

Port-installed accessories are vital to creating additional profits for OEMs and their dealership networks. They also create jobs in the port.

"Inventory shortages across the industry have pushed dealers to invest more in vehicle accessorization to create added value for their customers, using features that help customize massproduced vehicles using a skilled labor force dedicated to quality," said Gunnell.

Volkswagen now sells more SUVs than cars, and SUVs offer greater accessory opportunities. Boucher listed some of the most popular: trailer hitches, extended range remote starts, puddle lights, and rear bumper rock protectors, as well as digital accessories.

Accessory installation is becoming more highly skilled. Boucher said OEMs rely on expert port processors to handle much of the accessorization. "They have technical competencies. For example, they make sure a car is recoded after you add a hitch or other item."

Car dealerships do accessory work, but, as the services become more technical, Taylor said processors can do it better. "A vehicle coming into JAXPORT may be going to 100 different dealers in the Southeast. If the OEM is doing quality control, they may have to visit 100 places. If AMPORTS does the work for all the



"Jacksonville is a great gateway. It has good port infrastructure and berthing...good rail connections that feed adjoining states,"

- John Felitto, President, Wallenius Wilhelmsen VSA

dealers, the OEM can just send the quality control expert to one place. And, our labor becomes specialized in the technology and gains greater expertise," said Taylor.

Taylor said that the Jacksonville labor force can be scaled up for increasingly complicated work. "Industry technology is changing rapidly and we have to have a workforce that keeps up," said Taylor.

INDUSTRY IN TRANSITION

JAXPORT and its auto partners are serving an industry in flux. "Our friends at JAXPORT have been wonderful partners," said Boucher. Regular discussions have been important, as have the port's respect for the environment and available space. As vehicles get larger, Boucher expects over-the-road and rail capacity to be a concern, via the Jacksonville gateway and nationwide.

Wallenius Wilhelmsen Vehicle Services Americas' President John Felitto said the most important things a seaport like Jacksonville can do to prepare for the changes in the auto industry are simple – "to provide: space at the right location, with first point of rest close to berth, within a quarter mile; good, well-dredged berths; and additional capacity for growth and for surges. When a port collaborates and shares strategic plans, the port and industry can grow together."

On the political front, Felitto



expects greater environmental regulation, which will increase costs and speed up electrification. He remains concerned about the future impacts of COVID-19, "In April-May-June 2020, there wasn't a car plant in the world that didn't close. I'm concerned about the lag effect." On the positive side, "This pandemic did tighten up the supply chain, and cleaned up inventory issues in North America. The order to delivery cycle is now shorter," he said.

"Politics is playing a larger role in the automotive industry with new trade agreements, Brexit in Europe, tariffs, nationalism," said Yiakoumi. A general disruption is in progress. Electrified vehicles are coming downstream quickly and both consumers and governments are pushing for more. Big vehicles are here to stay, EVs are gaining traction, and digitization and customization are becoming increasingly popular with consumers. These auto industry trends are challenging automakers and all supply chains.

Yiakoumi said that flexibility

is important to accommodate the ever-changing automotive industry. Capacity must be flexible, and the port must be ready for changes from ICE vehicles to EVs, and for changing global trade lanes.

"Jacksonville is a great gateway. It has good port infrastructure and berthing ... good rail connections that feed adjoining states," said Felitto, all factors that will play a key role as the industry continues to shift gears to adapt to the trends driving the auto industry into the future.

JAXPORT'S THRIVING Auto Business

JAXPORT's Director of Ro/Ro Alberto Cabrera said that while COVID-19 had a short-term impact on auto movements, the port's vehicle counts returned fully in August 2020. He noted the global recovery in the automobile manufacturing industry is driving growth for the port's vehicle business. "In the first quarter of JAXPORT's 2021 fiscal year, we saw a seven percent increase in our auto volumes – making it the second-busiest quarter for vehicles in JAXPORT history," said Cabrera.

JAXPORT remains one of the top auto handling ports in America, due in large part to a location near the U.S. Southeast's top OEMs, and within the country's third-most-populous state. The port's three vehicle processors - AMPORTS, Wallenius Wilhelmsen and Southeast Toyota Distributors - are served by 17 Roll-on/Rolloff carriers. Autos move in and out of the port quickly and cost-effectively via three railroads and exceptional highway connections.

The port's import autos are sourced globally, but Cabrera said Mexican production is a hot spot, now handling Mazda, VW, Nissan, and some GM and Ford vehicles. The outbound market includes almost every American-made brand, as well as a strong pre-owned vehicle trade.



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Florida has been called the flattest state in the nation, the sunshine state, and the gateway to Latin America. It is worldrenowned for beaches, Walt Disney World, and the Kennedy Space Center. However, other than its traditional industries, such as fertilizers and citrus, it hasn't been widely recognized for its manufacturing or distribution businesses.

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That's changing, according to Lake Ray, President of the First Coast Manufacturers Association (FCMA).

— FEATURE —

A CONFLUENCE OF FACTORS

Lake Ray has seen manufacturing and related jobs grow in Florida. "Some long-term programs are now coming to fruition. We looked at ways to diversify the economy, and that included manufacturing. For every job created in manufacturing, you get three jobs," Ray said.

He added the time has come to tap into an unprecedented confluence of three factors: technological developments like smart manufacturing, restructured demand in the booming ecommerce era, and a varied inventory of commercial and industrial sites. All this is happening at a time when Florida's population is growing by roughly 300,000 people a year (according to USpopulation2020. com) and that spells opportunity.

TRANSPORTATION INVESTMENT HELPS GROW ECONOMY

Florida's leaders want to grow the economy. Over the past decade the state has made multi-billion dollar investments in transportation infrastructure to stay globally competitive and leverage other state assets to attract new businesses and jobs. Building more efficiency and economies of scale into Florida's supply chains helps Florida businesses compete now and in the future.

There has been heavy investment in Florida ports too. Equipped with the right intelligence, infrastructure and initiative, Florida ports will continue to move more and more of the state's consumption, raw materials and production. According to the Florida Seaport Transportation Economic Development Council's five-year seaport mission plan, in 2019 Florida seaports moved nearly 112 million tons of cargo valued at \$86.6 billion. Their five-year capital improvement plans tally \$3 billion.

A 2018 economic benefit update showed that JAXPORT alone generates 26,282 local jobs in portdependent positions, which is 8 percent more than in 2013.

JAXPORT's capital investment plan starting in 2019 outlined \$656 million in expenditures. Better facilities means more competitive global access, and that's the way forward for Northeast Florida.

Transportation investments stimulate other industries. Jacksonville imports everything from furniture and consumer electronics from China and Vietnam, to new automobiles from Japan and Mexico, and pharmaceuticals from Puerto Rico. Robert Peek, Director and General Manager of Sales and Marketing for JAXPORT, said, "Consumers and the industries that serve them depend on JAXPORT's competitively priced, regularly scheduled container liner services to collect globally sourced goods. The port also exports everything from US-built automobile exports, to forest products and agricultural goods."

TARGETED BUSINESSES

Enterprise Florida tries to attract industries that best match the state's assets, which include



competitive costs, a large talent pool, comprehensive infrastructure, global connectivity, and a huge market. The industries are: aviation and aerospace, life sciences, advanced manufacturing, defense and homeland security, information technology, financial and professional services, logistics and distribution.

TECH FORWARD

Educating young people to help create the best possible pool of talent for the future is a statewide initiative that also attracts manufacturers and DCs. The University of Florida is developing a world-class artificial intelligence (AI) supercomputer with the objective of deploying AI training in every single university discipline, from engineering to the arts. Giving students the tools to apply AI across a multitude of areas will "improve lives, bolster industry, and create economic growth across the state," according to UF's announcement in July 2020.

Amanda Bowen is Executive Director of the Manufacturing Association of Florida. Bowen said collaboration has been important to the state's business case. "In this state, we've got industry working with tech leaders, communities, and educational partners – we have high school students working in a manufacturing program and making products that are on the international space station right now. It's a perfect marriage."

Ray said, "We are looking at AI and

For every job created in manufacturing, you get three jobs,"

-Lake Ray, FCMA

the telemetry of manufacturing in Northeast Florida. There are companies that do not exist today that will exist and thrive in five years. Manufacturing is becoming better, faster and cheaper. Everything we've known before is on the board to be transformed. It will be transitional, but every industrial age ends up bringing more jobs and a higher standard of living."

TIMING IS EVERYTHING

Technological advancements are a primary trigger for recent decisions to locate manufacturing and distribution-based businesses in Florida. In the Jacksonville region, houseware product manufacturer Hans-Mill Corp, and solar module manufacturer JinkoSolar have both introduced successful advanced manufacturing facilities.

The time is also now for ecommerce, distribution and fulfillment centers. Aundra Wallace, President of JAXUSA Partnership, said, "In Jacksonville, Wayfair, Amazon, and 11 other ecommerce companies have announced new facilities over the last few years."

Other factors accelerating the move of manufacturing and DCs into the state include the continued availability of affordable land and sites, even the large footprint locations and spec buildings often wanted by in-a-hurry ecommerce facilities. Peek said that Northeast Florida offers more than 144 million square feet of warehousing space ready to handle a variety of cargo types. The region also has an enviable inventory of ready-to-go property.

SOLID CASE FOR MANUFACTURING IN FLORIDA

The case for manufacturing in Florida, according to Ray, has grown stronger as the cost of labor falls as a percentage of the cost of goods sold. The cost of materials and energy have becomes more influential in attracting manufacturing.

"The world wants Florida's products," said Ray. Florida makes quality products, and stands behind them with effective quality control and quality assurance. It comes down to trust, Ray said.

"Our labor cost is higher but the differential may only be about 5 percent. Companies are picking up and moving here because of technology and the fact that we can get things done faster. Our productivity is higher than anywhere else in the world. The world is willing to pay 5 percent or so more for our products," said Ray.

Florida manufactures: aerospace products, beverage cans, vacuum trucks, pipe, men's grooming products, bullet-proof vests, contact lenses, pacemakers, fishery products, acoustical panels, batteries, solar panels, and many more products, according to Ray.

Located in Green Cove Springs, employee-owned vacuum truck manufacturer Vac-Con is a poster child for manufacturing in Northeast Florida. As a worldwide distributor, it uses JAXPORT as its preferred port for shipments overseas. "As an OEM



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with an export arm, the port is a vital asset to our continued success. Having the port in our backyard allows us the opportunity to better manage our logistics cost for these overseas orders. The JAXPORT team fosters the benefits that a local port has on our business, due to their understanding of our needs and the demands of our international customers," according to Blake Brown, Vice President of Operations for Vac-Con.

One of the FCMA's goals is to introduce manufacturers to regional advantages, such as JAXPORT. "Businesses benefit from having a port nearby," said Ray, whether it is used for importing raw materials, exporting finished product, or storage and warehousing. The Foreign Trade Zone is another important benefit – there are cost savings to be had by deferring duties on many products including manufacturer's raw materials, especially high value materials.

Bowen described manufacturing as having been less than glamorous in the not-too-distant past, and said sometimes the misconceptions persist. "Technology has given us the opportunity to rebrand manufacturing, and to expand the industry. Florida offers such a perfect location. You really couldn't find a better place to build a manufacturing hub for the world," she said.

Bowen said one of the state's best assets is that it is a melting pot for manufacturing trends and developments. The ability of our industry and educational partners to collaborate and "work through the tech" has been a strength. Florida companies support and learn from each other and that in turn allows manufacturers to adapt quickly. "Sometimes the collaboration leads to tech breakthroughs. Many manufacturers are small businesses. Access to or even collaboration with household names like Lockheed Martin and Tesla can be transformational for them," according to Bowen.

The Manufacturing Association of Florida supports initiatives like UF's artificial intelligence objectives. "States that don't work together on things like blockchain, AI, 3D printing, and robotics will get left behind. Florida is supportive of moving forward and not holding things back," said Bowen.

HIGH-TECH MANUFACTURING STREAMS IN

Manufacturing for high-tech

industries such as aerospace, and also for low-tech products whose makers are turning to advanced manufacturing business models, are an excellent fit for the state of Florida, according to Ray.

For example Florida doesn't have any auto makers. It was long thought impossible, but with the advent of AI and automated manufacturing, there might eventually be a place in the state for auto manufacturing. Louis Yiakoumi, a UK-based auto industry expert, founder of Automotive Logistic Group and Chief Connector at LConnect, said, "Setting up a new manufacturing plant is a very expensive process ... There may be an opportunity with the new carmakers who are growing at a faster rate than ever," such as the new electric vehicle makers – Tesla, Rivian, Lucid Motors and Nikola. "Perhaps the new plants may be contract manufacturers," which is common in the tech industry, said Yiakoumi.

Florida works hard to attract companies like these, and one innovative tool made available to help manufacturers is a supply chain called Connex Florida. It contains in-depth information on a broad range of Florida manufacturers, along with detailed search functions to highlight specific production capabilities, certifications, equipment, material types and more, according to Enterprise Florida. The tool aims to help manufacturers better connect with each other, be discovered, and increase business opportunities.

JAXUSA does something similar with its new GIS web tool that provides information to business owners, brokers, site selectors and others. "The database even provides maps of available workforce and demographic data, and helps provide incentive information. We want to make it easy to choose Jacksonville," said Wallace.

Florida is on a mission to expand its economy by attracting many different industrial sectors. JAXPORT is a critical partner in this mission, driving economic prosperity in Northeast Florida and throughout the state.



TraPac Jacksonville, LLC Premium service for premium shippers

www.trapac.com

TraPac container terminals is transforming the global shipping industry by making strategic investments in technology and services that enable us to provide unparalleled premium service to our customers. The innovations that TraPac is pioneering is setting new standards for efficiency, security, safety and environmental protection throughout the industry.



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OPPORTUNITY ON THE HORIZON FOR PUERTO RICO

Disruption in the supply chain, from the trade war dispute between China and the U.S. and the COVID-19 global pandemic, is creating a push for nearshoring. As U.S. companies look to transform their supply chain to mitigate risk there is opportunity for the island of Puerto Rico to grow, utilizing its already strong transportation infrastructure.

JAXPORT and its Puerto Rican carriers, Crowley, TOTE Maritime and Trailer Bridge, stand ready to support. More than 85 percent of the goods shipped to and from the mainland United States and the island come through Jacksonville, Fla. These companies have made investments in their fleet and landside operations to support trade with the island today and in the future.

Each weighed in on the opportunities on the horizon:



"The opportunity in Puerto Rico to benefit from nearshoring is tremendous. The capability and efficiency of the island's workforce, contrasted against cost factors and transit times from Asia, makes Puerto Rico a brilliant option. Using Puerto Rico, you can take advantage of 55-hour transits in both directions, making for a faster, more economical option."

Bob Goldenberg, Vice President, Commercial Operations, Crowley Logistics

"Puerto Rico has demonstrated its capabilities as a global manufacturing center in pharmaceutical and medical devices, possessing the talent, leadership and resources required to support the re-development of this economic sector that is so critical to our nation's security. TOTE's dedicated services to the island via JAXPORT



ensure a high-level of efficiency and can help strengthen the safety, stability and integrity of the medical supply chain in the U.S."

Chris Willman, VP of Sales & Marketing, TOTE Puerto Rico

"Puerto Rico continues to be a leader in medical device and prescription drug manufacturing with the capabilities to do much more. Supply chains since the pandemic hit have been under distress. Shipping capacity across the global markets has been volatile both in price and service but exporting from Puerto Rico to the US mainland has continued to be consistent and value driven."

John Wroby, Chief Operating Officer, Trailer Bridge, Inc.





MATCHMAKING: SELECTING THE RIGHT LOCATION FOR ECOMMERCE

By Lori Musser

In the early 1990s the internet was opened to commercial business, the century-old Sears catalog for general merchandise was retired, and people had a new way to order goods without having to set foot in a retail store.

Fast-forward to today and the adoption of ecommerce has skyrocketed as a result of the COVID-19 global pandemic – disrupting not only the way consumers consume but also retailer's fulfillment strategies.

Traditional distribution models are being replaced by smaller fulfillment centers closer to major population centers. Site selection – now more than ever – is key as retailers look to position their business for growth in today's market.

"It's important that executives and teams leading a site selection process

understand that few corporate decisions have as many immediate and long-term implications on tax structure, cost of goods sold, supply chain, labor force, culture and overall operating success as the choice of location," according to Steven Bandolik, Managing Director with Deloitte Services LP and a senior leader in Deloitte's real estate and construction services practice, in a recent Commercial Property Executive column.

SITE SELECTOR'S WISH LISTS

Isolde Decker-Lucke, Marketing Manager at location intelligence firm Skyhook, said in her October blog entitled Site Selection for Warehouses and Distribution Centers, "Location analytics can help these logistics businesses make informed decisions based on local customer base, access to resources, and transportation access." According to Lucke, a thorough analysis will take into consideration current route performance, customer locations, access to raw materials, truck route efficiency, competitor locations, and government regulations including driver-hour limitation and energy restrictions.

Aundra Wallace is President of JAXUSA Partnership, Northeast Florida's economic development agency. JAXUSA works with businesses throughout the site selection process - offering area expertise and insights. Wallace says when it comes to ecommerce businesses JAXUSA addresses the logistics "pain points": reducing damage and loss of goods in transit, meeting consumers' expectation for speedy delivery, and reducing the cost of last-mile delivery. JAXUSA also focuses on the region's ability to meet labor requirements, and helps evaluate warehouse space availability.

Jeanette Goldsmith is Vice President of Strategic Development Group and a member of the Site Selectors Guild. She said, "I think companies often feel site selection is a simple real estate decision but done right it is a complex array of factors and how those factors interact with each other."

She categorizes facilities into one of two categories to better understand their needs: labor-intensive (i.e. ecommerce, picking and packing) and capital-intensive (i.e. highly automated manufacturing). "Site selection for labor-intensive facilities is driven by workforce," said Goldsmith. "Capital-intensive facilities are more driven by logistics, so regions with best access to raw materials and customers compete well. These types of facilities are also focused on lowest delivered cost for their outbound products."

Northeast Florida checks off the boxes on ecommerce wish lists – with a résumé of ecommerce brands to solidify its claims.

Wallace said, "Over the last five years, JAXUSA has been involved in the announcement of 13 ecommerce operations which have invested more than \$3.3 billion in infrastructure and generated more than 18,000 initial jobs, and in many cases have expanded since."

The new logistics, distribution and fulfillment centers include the likes of Amazon and Wayfair, and furniture brands Industry West and Article, - FEATURE -----



Aundra Wallace, JAXUSA Partnership

and more are coming, added Wallace. Many use JAXPORT for global sourcing and shipping, including aftermarket auto parts etailer 1A Auto. The company announced in December 2020 its plans to open an 86,800-square-foot Southeast distribution center near the port's

Blount Island Marine Terminal.

1A Auto will use the facility to same-day ship imported auto accessories and repair parts from Asia for distribution throughout the Southeast U.S. 1A Auto's Head of Logistics, Rich Higgins, told JAXPORT that the facility's proximity to the port, rail service, the airport and the UPS Sort Center "makes Jacksonville an excellent logistics location for retail and ecommerce in particular ... We're able to reach virtually 100 percent of our customers in Florida overnight from Jacksonville, which was a real selling point for us."

NORTHEAST FLORIDA'S APPEAL TO ECOMMERCE

Newcomers to the Jacksonville region have called the area a good place to "scale" up to serve the growing Florida population. Wallace said access to market is a top selling point: "Companies can get to 94 million people within an 8-hour drive and our interstate access, robust rail system and exceptional port make our city very attractive." That reach covers all of Florida and the Southeast U.S., which is the nation's fastest-growing consumer market. Half the U.S. population can be reached with second-day delivery.

The tax climate is also a plus. "Florida is ranked fourth for best business tax climate by the Tax Foundation. Once you get to Florida, there is no corporate franchise tax, no state personal income tax, no inventory tax, low state sales and use rates, low corporate income tax, and the average property tax [in Northeast Florida] is relatively low compared to the rest of state," said Wallace.

The availability and suitability of industrial warehousing space is a critical site selection factor. Robert Peek is Director and General Manager of Business Development for JAXPORT. Peek said the area has more than 144 million square feet of flexible warehousing space ready to handle a variety of cargo types.

That supply is important.

"Ecommerce companies want to





start operations quickly. Having access to available buildings and sites is of utmost importance in the early stages of decision making," said Wallace. "We've launched a new GIS web tool that provides business owners, brokers, site selectors and others information on commercial and industrial sites directly."

The database provides maps of available workforce and demographic data, and helps provide incentive information for interested parties. "We want to make it easy to choose Jacksonville," added Wallace.

A new CBRE report said that supply chain restructuring in response to COVID-19 may lead to new practices that drive demand for an additional 400 to 500 million square feet of industrial distribution space in the U.S. The report states that supply chains disrupted by the pandemic will end up restructuring, and increasing inventories closer to consumer and manufacturing locations.

The Northeast's population, like Florida's, is on the rise. "Jacksonville made the biggest gains of any city in the U.S. from April to August 2020 –10.7 percent more people came than left," said Wallace. "People are choosing Jacksonville, leaving high cost/high density cities and regions, for our quality of life, low cost of living, and great education system. With the growth, comes more consumers and an increased pool of skilled talent."

Jacksonville's workforce is young with an average age of 38, but Wallace said regional leadership is already collaborating on education and career academies to ensure the workforce of tomorrow is able to offer all the appropriate skills.

The greater Jacksonville area boasts 845,000 workers, said Wallace. By comparison, other Southeastern port cities in the U.S., like Charleston and Savannah, have under 150,000 in their talent pools.

Goldsmith pointed out some of Jacksonville's best assets for attracting ecommerce: the port, existing industry clusters (including financial, insurance and healthcare firms, and manufacturing, particularly in aerospace), and the sizable workforce which is partly comprised of ex-military with ready-made tech skills. "These people are young and have time for a whole new career," and their skills and work ethic really strengthen the area workforce, said Goldsmith.

Roughly 3,000 of the people who separate from the military each year stay in the region, according to Wallace.

Giant eRetailer Wayfair emphasized the importance of the workforce when its new facility at Cecil Commerce Center was announced. Wayfair's James Savarese, Chief Operating Officer, said in the initial announcement, "With the opening of our new distribution center in Jacksonville, we know we will benefit from a strong talent pool and we look forward to contributing to the growth of job opportunities in the region as we welcome hundreds of employees to our world-class team."

As Goldsmith noted – Jacksonville's port also plays an important role in attracting retailers to the region.

Most ecommerce businesses require global connectivity to source their product. JAXPORT offers retailers access to more than 140 ports in 70 countries across the globe – supporting a diverse sourcing strategy which proved to be key when trade wars and COVID-19 shut down access to some markets. The port's ocean connectivity is supported by outstanding intermodal options with options via both truck and/or rail.

Businesses set up shop in regions that offer unique and attractive assets. They choose a site only when it is good for business. The Jacksonville region has proven assets that are helping retailers not only survive the shift in their distribution model but also thrive.

WELCOME TO

The roster of brands choosing to put roots in Jacksonville continues to grow. The area welcomed a number of new ecommerce-related brands and national service providers in the past year including toy manufacturer Safari Ltd®, online-only aftermarket auto parts retailer 1A Auto as well as third party logistics providers Quiet 3PF, the renamed Quiet Logistics, and SEKO Logistics.

While the products and services are different for each business, they each shared a common interest– Jacksonville's ability to serve their supply chain needs. For Safari Ltd President Christina Pariente – it was the area's labor force and warehousing options that drew the company to Northeast Florida.

"JAXPORT's efficiencies and strategic location continue to attract some of the biggest names in ecommerce. Every time a company opens a new distribution or fulfillment center here, it creates local jobs throughout the supply chain," said JAXPORT CEO Eric Green.

1A Auto selected Jacksonville as the site for its Southeast US distribution operations to meet consumer's demands for next-day and same-day shipping. The company's facility near JAXPORT's Blount Island terminal will be used to ship imported auto accessories and repair parts throughout the Southeast U.S.

"Our new facility's proximity to JAXPORT, the rail, the airport and the UPS Sort Center, makes Jacksonville an excellent logistics location for retail and ecommerce in particular," said 1A Auto Head of Logistics Rich Higgins. "We're able to reach virtually 100 percent of our customers in Florida overnight from Jacksonville, which was a real selling point for us."

The area's strategic location was also key in Quiet 3PF's decision. In a statement to the Jacksonville Daily Record, Quiet 3PF President and COO Brian Lemerise said, "Jacksonville is a critical component of our national network with strong access to the Southeast through next day ground delivery from Atlanta to Miami, furthering our strategy to reach 45 percent of our end customers via same-day ground and 75 percent by next-day ground."

Others taking advantage of the area's efficiencies include AxionLog, Cra-Z-Art, Margo Garden Products, Ulta Beauty and Wayfair. Jacksonville offers ecommerce shippers speed to market, global connections and room to grow with an expansive transportation and logistics ecosystem.

Learn more at: JAXPORT.com/ecommerce













ULTIMATE GUIDE TOWAREHOUSING INJACKSONVILLE

Northeast Florida features available land and 144 million square feet of warehousing and distribution space, including the largest industrial park in the Southeast U.S. According to leading global real estate services firm Cushman & Wakefield, Jacksonville offers a lower asking rent than other industrial markets in the U.S.

Jacksonville's industrial space is made up of three major submarkets, the Northside, Westside and Southside. Each of these markets are in close proximity to port terminals with fast access to the region's three major interstates – I-95, I-295, I-10 and I-75. The area also offers ease of access in and around Jacksonville,

with the average commute time 26 and a half minutes, according to Jacob Horsley, Senior Director, with Cushman & Wakefield. WESTSIDE

46.8+

ORANGE PARK/CLAY

2.1+ SF





"There were six leases over 400,000 square feet (sf) signed in 2020, all but one on the Northside. Tenants were either in ecommerce or in retail trade."

NORTHSIDE

TALLEYRAND

BLOUNT

SOUTHSIDE

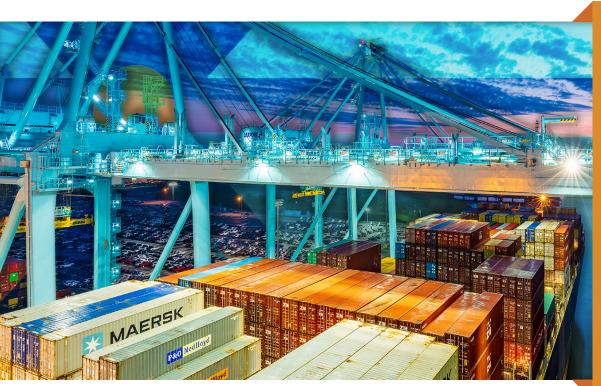
18.6+

295

- Chris Owen, Director, Cushman & Wakefield

AVERAGE OF WAREHOUSE LEASE RATE \$4.62 \$4.84 \$6.29 JACKSONVILLE SAVANNAH

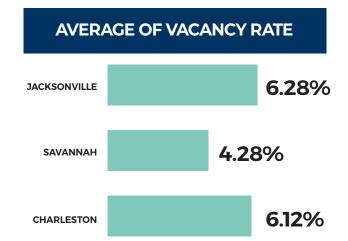
*Averages derived from four commercial real estate reports, Q4 2020: Cushman & Wakefield, CBRE, Colliers International and JLL.



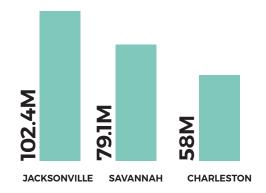
JAXUSA Partnership offers a virtual GISWebTech Recruit tool providing businesses interested in Northeast Florida with building brochures and specs, data points on demographics, workforce availability and research.

The interactive mapping technology provides a customized 'driving tour' using Google Maps with image and video capability.

Launch this interactive tool at JAXUSA. giswebtechrecruit.com.



AVERAGE OF MARKET TOTAL RBA



Connect with warehousing service providers with JAXPORT's online Business Directory at JAXPORT.com.

WHAT THEY ARE SAYING: Commercial real estate executives Weigh in on 2021 retail trends

By Laura Jane Pittman

Retail has been revamped - with the shift from brick-and-mortar stores to online shopping in 2020 increasing the need for distribution space with 'final mile' logistics in mind – causing considerable changes in industrial warehousing space.

With the impacts of the COVID-19 pandemic expected to push well into 2021 - we asked local commercial real estate experts to weigh in on market trends and share their outlook for the next 12 months.

Here's what they had to say.



JACOB HORSLEY SENIOR DIRECTOR, CUSHMAN & WAKEFIELD

Jacksonville's geographic location – with a large consumer market within an 8-hour drive - makes it very attractive for retail and wholesale distributors to operate here.

With that said, in 2021, we will likely see an increase in more and more "final mile" delivery stations. These facilities are different from larger distribution centers in that they are smaller, are located closer to consumers, and act as holding stations for short term product delivery. This gives rise to the need for more flexible space and for inclusions like trailer storage and enhanced parking. For example, our company is developing an 80,000 square foot warehouse that we are dividing into four different suites, each around 20,000 square feet, to cater to final-mile users.

Another interesting trend to watch in the next several years is the rise of autonomous driving. Once distributors are able to deliver products at any point and time without having the constraints of an actual driver/person, this will change the commercial real estate landscape dramatically.



LUKE POPE VICE PRESIDENT, JONES LANG LASALLE BROKERAGE, INC.

Consumer buying habits have been fundamentally changed forever, and this has been a game changer for supply chains. With Jacksonville having a large population center and a significant port, companies will be seeking to more effectively serve our population within one day – or same day. Demand will continue to increase for industrial space close to the population centers and within proximity to the port.

This follows a recent Auburn University/Council of Supply Chain Management Professionals study in which 85 percent of the respondents expected to expand or increase their distribution center networks. This will drive industrial real estate demand and will ultimately be good for the Jacksonville market.



BEN STEWART INDUSTRIAL REAL ESTATE SPECIALIST, CB RICHARD ELLIS

For every \$1 billion increase in the economy, we typically see an increased need of 1.25 million square feet of industrial space. In 2020, we saw nearly five million square feet of industrial space absorbed; usually the absorption rate would have been closer to two to three million. Demand may continue to outpace availability in 2021. There may be a parallel increase in rental rates, due to supply being short.

We will also see increased need for space designed to handle specialized commodities such as groceries – a segment of the market that is five to 10 years ahead of where it would have been in terms of adoption without the unusual growth of this past year.



PETER ANDERSON VICE PRESIDENT OF DEVELOPMENT, PATILLO INDUSTRIAL REAL ESTATE

With regional distribution centers for both UPS and USPS and intermodal yards for both CSX and Norfolk Southern, Jacksonville remains the only city in Florida with this infrastructure and is unrivaled in the region. This ensures that Jacksonville will continue to attract more distribution facilities as companies reshuffle their networks.

Also, St. Johns County is becoming an ever more important component in Jacksonville's success story, having the #1 rated school system in Florida, and it remains an attractant for industry locating within the Jacksonville MSA.



BREAKBULK BUSINESS STEADY AT JAXPORT

By Sandy White

While the global pandemic has accelerated many digital innovations over the past year – traditional paper, pulp and forest products are increasingly finding efficient routes into the U.S. through JAXPORT.

"This cargo segment has a solid base in Jacksonville," said Rick Schiappacasse, JAXPORT Director, Cargo Sales, due to the port's efficient and skilled operators and ocean services dedicated to breakbulk.

TRENDS IN FOREST PRODUCTS

The global pandemic has had an impact on forest products.

The demand for products like airport and airline-distributed magazines and newspapers, as well as flyers for schools and brick-andmortar retail advertising inserts, has declined with less people traveling, shopping, and going to work or attending school in person.

However, items like direct-toconsumer mail pieces and labels, whether for a product or for an ecommerce package, and homeoriented and local magazines have been increasing in demand.

Pulp has been a bright spot, says Brian Frennea, Vice President Forest Products and Logistics at SSA Marine, Inc., a terminal operator who has been handling import and export breakbulk cargo and wood pulp for decades. SSA operates on-dock warehousing space to handle pulp at JAXPORT's Blount Island Marine Terminal.

"The pandemic actually resulted in some increased volumes of import pulp to the U.S. to fill recycled fiber supply gaps and a general increased demand for tissue products," Frennea said.

SERVING THE INDUSTRY

02

"SSA targeted the import wood pulp business for Jacksonville then deployed skilled supervision and equipment resources to professionally service the business," said Frank McBride, SSA Atlantic Vice President Florida Operations.

Ocean carrier G2 Ocean has been bringing forestry products into JAXPORT since the early 1990s, said Chartering Director Andy Powell, including rolls, fluff pulp, lumber and bleached kraft pulp in bales from Brazil. The company uses open-hatch box-shaped cargo holds and crane lifting capacity of up to 150 metric tons. "Our extensive range of vessels is tailor-made to handle various lengths and diameters of forestry products, ensuring optimal cargo care and flexibility," he said. "We find the terminal expansion that JAXPORT has undertaken as critical to effectively manage the extra demand," he said. "We need to ensure safe and efficient shipping operations. JAXPORT is putting in the resources to make this happen."

Frennea agreed, saying, "The SSA and JAXPORT operations remained solid and effectively supported the supply chain demands, further proving its value to customers and carriers operating in the U.S. Southeast pulp market."

For paper customers, Patriot Ports acts as a distribution center at JAXPORT's Talleyrand Marine Terminal, and much of the product comes from the Baltic area of Europe on a regular schedule aboard vessels from ocean carrier Spliethoff.

Peter Gutter of the Baltic Department at Spliethoff said that the firm "offers a fast, reliable and dedicated service from Europe to the U.S. East Coast, specializing in paper reels and pulp shipped as breakbulk for many decades."

Spliethoff's specialized vessels offer side loaders designed for efficient handling of paper rolls, which is a competitive advantage, said Scott MacGregor, Assistant VP Business Development Ports for Patriot Ports.

Patriot Ports brings the paper into its warehouses, where containers are stripped and loaded back into over-the-road trailer, intermodal/ container or boxcar. Handling the large rolls of paper, which can sometimes measure up to 90 inches tall, requires a deft touch, MacGregor said. "It's a very careful process from the time the rolls are produced," he said. "Even though they weigh over four metric tons, they are very delicate."

- FEATURE -

Jon Vander Wal, Vice President, North America Supply Chain for paper and pulp producer UPM, agrees, saying that this type of paper has very little tolerance for damage.

"Our customers and printers are under pressure to be better stewards of the paper that they're using," he said. "It's important for us to have partners and operators who can handle the paper and load into vehicles and rail cars while minimizing damage and loading it, so that there isn't further damage in the course of transit. It requires a great amount of skill."

Partnership in ensuring this commodity's safe transportation is key, says Gutter. "Due to a very good combination of long-term partnership with the focus on the right targets with all the expertise and knowledge we have in our teams (JAXPORT, Patriot Ports and Spliethoff), it has proven to be a reliable way of shipping the paper, pulp and breakbulk cargoes into and from the U.S.," he said.

THE JAXPORT DIFFERENCE

Unloading efficiency is a bonus for JAXPORT, Schiappacasse said. "These products can be damaged by rain or weather. The proximity from berth to the warehouse is very close – 80 feet – which helps lessen the chance of moisture damage."

The ease of access to interstates and the availability of warehouse space also make JAXPORT attractive.

Vander Wal says JAXPORT offers a "very economical way to reach a good portion of the United States."

Direct services from two Class I rail lines—Norfolk Southern and CSX is a benefit, MacGregor said. So is proximity to key interstate lines.

"JAXPORT does a very good job of keeping efficiencies at the gate so that trucks can get in and out quickly and in a timely manner," MacGregor said.

Technology enhancements provided by port tenants is also helping shippers gain visibility into their freight movements. At SSA Marine, Frennea said, "We have an IT product developed for the import wood pulp trade that provides a fully integrated solution to efficiently manage the flow of information and control of its customers cargo."

JAXPORT also offers experienced operators, Vander Wal said. "We're competing against domestic competitors in the U.S. What JAXPORT allows us to do, with the warehousing operations being as efficient as they are, is stage inventory for our customers at the port as it arrives. This allows us to more closely emulate or even exceed the service capabilities of our competitors."

POWERED BY THE SUN:

HOW THE LOGISTICS INDUSTRY IS SUPPORTING THE GROWTH OF SOLAR POWER

By Lori Musser

Florida boasts 220 days of sunshine each year, according to JAXUSA Partnership, and the 'Sunshine State' is one of the nation's top solar producing states. So it's no surprise the state is currently home to 28 solar power plants in operation and more coming online.

The Solar Energy Industry Association reports that solar costs are coming down in the U.S. – dropping by 30 percent in the past five years. The scalable energy source appeals to residents, businesses and utilities that are investing on a larger scale. The Jacksonville Port Authority (JAXPORT) is strategically partnering with supply chain service providers, electric authorities and others to support the transportation and logistics needs for solar cargo, according to JAXPORT's Director, NVO & Container Development, Frank Camp.

"We are seeing a lot of growth and investment in Florida, as well as in Georgia, the Carolinas, and Alabama," said Camp. He added the region offers plentiful available and affordable contiguous acreage, making North Florida a new hot spot for solar. JAXPORT's proximity to this growth has led to an uptick in solar cargo. In 2018, the port handled 5,376 twentyfoot equivalent units (or TEUs, the industry standard for measuring containers) of solar panels and by the end of 2019, that figure had risen to 12,743 TEUs, a 137 percent increase. Camp said volumes remained steady through 2020 with more growth opportunities on the horizon.

As businesses and electric authorities look to grow their use of solar energy, Jacksonville's transportation and logistics ecosystem is stepping up to help deliver the infrastructure needed, from warehousing space to safely store and deploy modules to the product's final mile delivery.

THE GROWTH OF SOLAR

Florida Power & Light Company, or FPL, is a subsidiary of NextEra Energy, Inc., the world's largest generator of renewable energy from the wind and sun. FPL serves more than 10 million consumers across the state and its sister company Gulf Power serves almost a half-million more in the Florida Panhandle.

FPL has optimistic solar plans. The company's "30-by-30" plan aims to make Florida a world leader in solar energy. By 2030, the company plans to install 30 million new solar panels, build 100-plus new solar energy centers, and generate energy that is 67 percent cleaner than the 2005 U.S. electric company average.

An FPL spokesperson said: "Our investments in affordable and clean energy continue to improve the efficiency of our system, reduce fuel consumption and emissions, and help keep costs down for our customers over the long term."

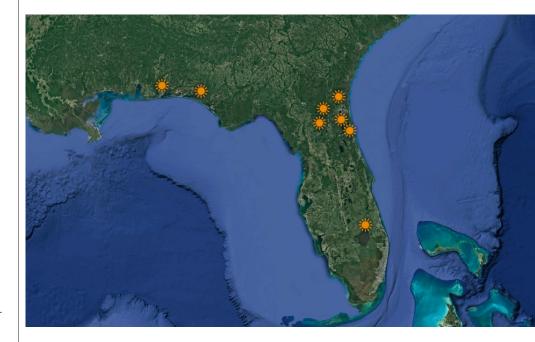
In addition to the "30-by-30" plan energizing the push for solar in Florida – there is also the Florida Municipal Solar Project, one of the largest municipal-backed solar projects in the United States. The project, led by the Florida Municipal Power Agency (FMPA), will consist of five solar farms across 16 counties throughout the state equipped with approximately 1.5 million solar panels.

Jacksonville's community-owned electric utility, JEA, is also investing in solar. The company recently submitted site plans for the construction of a solar farm in west Jacksonville. The proposed 947-acre solar farm will host an estimated 2,725 solar panels generating 50 MW of power. The project is the first of five JEA is working on in conjunction with EDF Renewables North America under a Solar Power Purchase Agreement. Construction is expected to begin in late 2021 with completion scheduled for mid- to late-2022. According to JEA's Media Relations Manager Greg Corcoran, the five projected solar farms, "will produce enough energy in the summer months for JEA to power one-third of the entire City of Jacksonville."

Electric authorities are not the only businesses taking advantage of the sun's power. Warehouses and large buildings in Northeast Florida and beyond are being topped off with solar energy arrays to power operations and reduce businesses' carbon footprint. IKEA's then U.S. President, Lars Petersson, said IKEA was Florida's largest non-utility private solar owner at the time – a title the company still holds to this day. Other top global brands are joining IKEA in their investment in solar including Apple, Amazon, Walmart and Target.

Also in Northeast Florida, Aqua Gulf, an asset-based transportation and logistics company that handles refrigerated and dry cargoes, launched its solar initiative. Aqua Gulf equipped its warehouse with a 62,000-square-foot solar array, comprised of 1,795 solar panels capable of generating 2.25 megawatts of power per day.

The company's investment in solar helps ensure the reliability and resiliency of its facility, including 14,500-square-feet of sensitive temperature-controlled space.



In 2017, IKEA built its 290,000-squarefoot Jacksonville store with the ability to produce 2.8 million kilowatts each year. At the time of construction, "Since we went live in October 2018, we have generated almost 2 gigawatts (GW) of solar power. We believe strongly that our



investment in solar is not only good for the environment but makes good economic sense," said Aqua Gulf President Sergio Sandrin. "The impact is direct to our bottom line, allowing Aqua Gulf to continue to add to our workforce and will help fuel future expansion in Jacksonville."

The company's North Jacksonville facility, near JAXPORT's Blount Island and Talleyrand marine terminals, now has regular grid power, solar power, and even a backup 200KW-generator. "We will not go off temperature," said Scott Fernandez, Vice President of Business Development at Aqua Gulf. "Maintaining cold chain integrity is important."

Not only is the company's facility powered by the sun, but Aqua Gulf also handles solar cargo, Fernandez said. Its first shipment of 1,000 pallets arrived in Jacksonville from Turkey, a few years ago, and soon after Aqua Gulf became a hub for receiving, storing and distributing solar cargo throughout Florida and the rest of the country. "Solar project managers routinely choose Aqua Gulf to outsource the full logistics package, from port to project site," said Fernandez.

He explained the inventory

management and delivery process for this cargo is critical. "It is all scheduling, timing and coordination so crews can keep working and avoid delays in the project schedule," said Fernandez.

FOCUSED ON SOLAR

Brantley Morrison is Director of Business Development for Shoreside Logistics. The inland transportation company serves the Port of Jacksonville providing drayage, trucking, intermodal, cross-

docking, consolidation, customs brokerage services and other 3PL services moving cargo throughout the nation's Southeast region. It offers domestic warehousing as well as FTZ warehousing in Northeast Florida.

Shoreside recently

handled solar panels for projects in south and central Florida. For some projects, Morrison said, the company simply provides line-haul services to the installation site. However, because the sites are not equipped with much in the way of existing infrastructure, components must often be kept inventoried in a warehouse and delivered just in time. He explained the solar panels and/or frames are picked up at the port, offloaded nearby from 40-foot international containers, and then either warehoused or immediately transferred to 53-foot domestic containers for delivery to site.

The speedy offload process sets international containers up for a quick return to port; and because the faster the containers get back to port the better the ocean line's asset utilization, ocean carriers like this kind

> of business. The transfer to higher-cube domestic trailers cuts out every sixth load, saving customers money.

> > For those shippers requiring warehousing, Shoreside Logistics pays special attention. From the moment it takes the panels into possession,

through the transfers, storage and delivery, customer service reigns supreme. For one solar customer, Shoreside sent its warehouse manager out to the field delivery site to oversee the offload and ensure total customer satisfaction.

"We have quoted several more projects," Morrison said. "We expect

FTZ NO. 64 OFFERS SAVINGS FOR SOLAR SHIPPERS

JAXPORT serves as the grantee for Foreign Trade Zone (FTZ) No. 64 - the largest zone in Florida by area - encompassing nine counties and 5,000 square miles in Northeast Florida. Aisha Eccleston, JAXPORT Director FTZ & Container Development, said there is an opportunity for duty deferral on solar cargo through the FTZ program. "It largely depends on several factors including the value of the cargo, duty rates, the timing of entry into the U.S., length of storage, and the timing of a sale to a customer," she added. Merchandise imports subject to higher duties do well in an FTZ. In this era of volatile trade sanctions, FTZs are attractive because they provide a business with flexibility in inventory management. The cargo can be held in the zone until the formal 'entry' of the cargo into the U.S. is more advantageous – allowing control of the cargo while managing cash flow.



Shoreside Logistics

more growth in this sector as utilities move away from fossil fuels and look to renewable energy options."

Shoreside Logistics recently received an FTZ designation to open up a variety of cost-saving benefits to customers, which, in addition to duty deferral and elimination, may include inverted tariff relief, inventory tax relief, and the ability to economically address damaged or non-conforming items, among others.

Morrison said the solar panels are packaged inside special cardboard containers on their pallets, which can be double stacked without damage, allowing warehouses to optimize floor capacity. "With this cargo, zero damage is an important goal," said Morrison. He added it takes time to get the cargo from Vietnam, Malaysia, China or other sources, and components can't be quickly replaced, so no damage is key for solar sites relying on a very tight schedule. "We are here, knowledgeable, experienced, and with capabilities to handle solar cargo start to finish, safely and on time," said Morrison.

JZI IntermodaLogistics is a global 3PL based in Jacksonville that is also experienced in solar cargo. Chris Sloope, the company's Vice President, said JZ has seen an increase in solar cargo RFPs recently and expects business to build due in large part to the experience as well as the breadth of services solar transportation and logistics demands.

"About a year ago, we began a project into Jacksonville that brought in 6,000 solar panels over six months, 20 or so containers at a time," said



Sloope. The company warehoused them a few weeks before delivery to a large site, and that service is key, Sloope shared. "In Jacksonville, not only can we help with customs clearance, storage and transport we can provide cash flow and cost savings through our FTZ warehouse. We want to offer everything, and let the client use as many services as they like," said Sloope.

LARGE CAPACITY FOR GROWING VOLUMES

MARINE SERVICES

Jacksonville-based Patriot Rail &

Ports provides rail and transportation services solutions throughout North America. In Jacksonville, the company offers stevedoring services at JAXPORT's Talleyrand and Blount Island terminals.

Paul Tonsager is Chief Commercial Officer for Patriot Rail & Ports. He said there is a lot of volatility in the solar market, but Jacksonville is already an established player. To date, the company has handled approximately 15,000 pallets of solar panels and components. Tonsager anticipates

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future solar shipments will be subject to peaks and valleys, related to solar installation project timelines and trade issues. However, he said that working closely and preplanning with NVOCC partner Aqua Gulf will help to accommodate the cargo flows while providing best-in-class service.

"Experience, capacity, service and landed cost is what the manufacturers and project developers are looking for," said Tonsager. Also important is the port's efficiency. "It is a big advantage if you can turn those boxes quickly. Our 30-minute offload speed can allow panels to be delivered to site the same day if needed," Tonsager said.

JAXPORT offers low congestion and quick turn times across its three container terminals – with stevedores reporting turn times as low as 18 minutes for two-way moves. Terminals are also located close to three major interstates, speeding up the delivery of products from port to next destination.

U.S. PRODUCERS REQUIRE INPUT CARGO

Some solar modules used in the U.S. are produced domestically.

Jacksonville is home to one of the largest U.S. solar manufacturing plants, operated by JinkoSolar (U.S.) Inc. The high-tech facility was designed to produce the company's Eagle G2 modules, including versions for the residential market as well as for larger projects.

The company chose to locate in Northeast Florida for the area's favorable tax climate and transportation infrastructure, including its deep-water port. "With lots of incoming material and finished products going out to all regions of the U.S., the transportation and logistics is essential to JinkoSolar's operation," said Jeff Juger, Director of Business Development for JinkoSolar in a 2018 interview about the company's Northeast Florida facility.

Two weekly ocean carrier direct calls from the Asian market at JAXPORT helps companies like JinkoSolar. The port also offers direct and transshipment carrier services from other sourcing markets in Vietnam, Hong Kong, Malaysia, India, the Caribbean and more.

SOLAR ON THE SCENE

It is no longer science fiction. Solar energy is being captured in Florida and around the world. The 2019 Solar Means Business Report produced by the Solar Energy Industries Association found two-thirds of all solar capacity was installed since 2015 and the growth potential continues to climb.

The Jacksonville port gateway, already well-known for championing an important and growing LNG hub, has set its sights on doing the same for the solar industry, providing widespread economic opportunities in Northeast Florida in the process.

DID YOU KNOW?

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THE FOCUS ON CLEAN ENERGY CONTINUES

JAXPORT and its partners continue to lead the clean energy revolution – and the momentum continues to grow. Crowley and Watco recently announced a partnership to create a single-source terminal and supply chain management solution to support the emerging offshore wind industry.

"This partnership will provide turnkey services for the offshore wind industry in the area of terminal management," said Lynda Patterson, Senior Vice President of Logistics for Watco, in a press release. "Crowley and Watco will work together to leverage our respective expertise in logistics, project management, and energy support to create innovative solutions to meet full lifecycle project needs."

The two companies, who have operations in Northeast Florida, are pairing their unique skillsets to help wind power companies enter the U.S. with an innovative approach for their supply chain.

Offshore wind is not the only renewable energy source that is growing for the Jacksonville market – solar is also on the rise. As businesses and electric authorities look to grow their use of solar energy, Jacksonville's transportation and logistics ecosystem is stepping up to help deliver the infrastructure needed, from warehousing space for safe storage and module deployment to the product's final mile delivery.

Liquified Natural Gas (LNG) investments in Northeast Florida have anchored the region as a leader in clean energy. JAXPORT is the only U.S. East Coast port to offer on-dock and near-dock LNG fueling



The 7,500-car-capacity Siem Confucius regularly call on JAXPORT to unload factory-new Volkswagen Group of America cars and SUVs.



capabilities. JAXPORT tenants TOTE Maritime and Crowley Maritime both serve the Caribbean trade lane with LNG-powered vessels – the first of their kind.

JAX LNG and TOTE Services completed their first ship-toship liquefied natural gas (LNG) bunkering of a foreign-flagged cargo loading conditions.

"Our modern and eco-friendly fleet helps reduce emissions while maximizing efficiency," said Siem Car Carriers President Jeffrey Campbell. "We are thrilled to partner with other pioneers in the environmental conservation movement, including This milestone paves the way for more international trading vessels to bunker at JAXPORT, marking the latest tangible demonstration of LNG as a safe and reliable fuel solution. It also builds confidence in the case for LNG to help the shipping industry meet increasingly stringent environmental regulations,



vessel at the Jacksonville Port Authority (JAXPORT) in February 2021. Crews loaded approximately 450,000 gallons of LNG from North America's first LNG bunker barge, the Clean Jacksonville, to the LNG-powered vehicle carrier, Siem Confucius, at JAXPORT's Blount Island Marine Terminal.

In preparation for the bunkering, JAX LNG worked closely with TOTE Services to utilize the Clean Jacksonville while also gaining acceptance from the U.S. Coast Guard to perform the bunkering during all potential Volkswagen, JAX LNG, TOTE Services, and JAXPORT, to reduce emissions while providing worldclass service to the industry."

This significant achievement comes on the heels of another clean energy milestone. Near the close of 2020, JAXPORT hosted the first LNG bunkering of a foreignflagged vessel in the U.S. at the port's Talleyrand Marine Terminal. Eagle LNG Partners, a pioneer in small-scale LNG and an LNG bunker supplier, is the first company to deliver LNG bunker fuel to a foreign flagged vessel. while still generating substantial cost savings.

Sean Lalani, President of Eagle LNG, said, "It is only fitting that this first bunkering in the United States happen in Jacksonville where JAXPORT, local officials and the community have embraced the shipping industry's transition to the more sustainable, affordable LNG."

Connect with JAXPORT'S LNG expert Rick Schiappacasse to learn how your business can benefit from the area's leading role in clean energy.

JAXPORT PARTICIPATES IN MULTI-NATIONAL U.S. MILITARY TRAINING EXERCISE

JAXPORT was one of three U.S. ports to participate in the large-scale deployment of U.S. military cargo for DEFENDER-Europe, a multi-national training exercise conducted by U.S. Army Europe and Africa. DEFENDER-Europe exercises will take place across 12 European countries beginning in May.

"The support of JAXPORT and its skilled labor force ensures that we have the right tools to carry out our mission seamlessly from start to finish," said Lt. Col. Altwan Whitfield, Commander, 841st Transportation Battalion.

Stevedores with JAXPORT partner SSA Atlantic loaded about 750 pieces of tactical vehicles and other equipment onto the Naval ship USNS Bob Hope.



Lt. Col. Altwan Whitfield, Commander, 841st Transportation Battalion, and JAXPORT Chief Operating Officer Fred Wong discuss JAXPORT's role as one of the nation's 17 strategic seaports during a military operation at Blount Island on March 26.



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