

NAVIGATOR

FALL 2018

SHIP-TO-SHORE CRANES

THE ULTIMATE CALL COLOR OF THE PROPERTY OF THE

FOR PORT HOUSTON



BAYPORT EXPANSION CONTINUES



BREAKBULK '18

PLANES, TRAINS AND AUTOMOBILES

ALSO: FOOD AND PRODUCE ROUNDTABLE THE FUTURE OF REMOTE CRANE OPERATIONS CORPS MAJOR GENERAL VISITS PORT HOUSTON PORT MAINTAINING SUBMERGED LANDS





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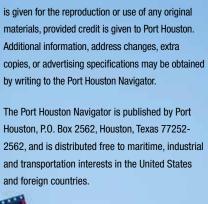
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It was an impressive sight to see three new ship-to-shore cranes aboard a vessel sailing toward our Bayport Container Terminal and then pulling up to the dock! As we continue to expand, this state-of-the-art equipment is a critical component toward building Port Houston for the future. We look forward to these cranes being commissioned for operation soon.

We also just received five more new rubber-tired gantry cranes, along with the five RTGs that were delivered in early August. As a result, the total number of RTG cranes in operation at the Bayport Container Terminal has increased to 48.

At Port Houston, we moved 1.3 million container TEUs through six months, growing 6% compared to 2017. Additionally, there is continued strength in steel trade, mainly import pipe, of 2.1 million tons, which was up 21% over last year. Indications for now are that we should see continued growth.

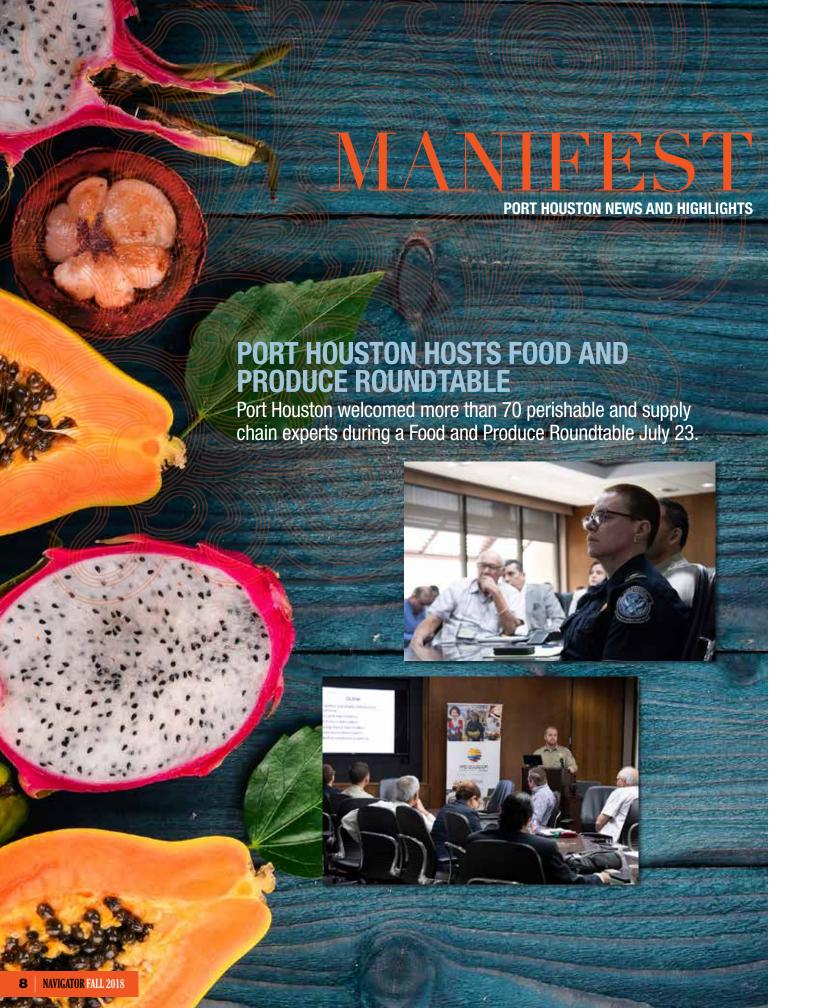
As an indicator of continued growth in container activity, we have broken record after record at our Bayport terminal. The latest operation featured 5,711 box lifts, the most in our history on one vessel call. These ships serving the East Asia market would not have called Port facilities without the expansion of the Panama Canal, or without the investments we have once again made in deepening and widening our Bayport channel or the investment in the equipment to handle this class of ships. This operation was

accomplished at a very productive rate through the continued partnership of our Port Houston operations personnel, our stevedoring partner and the skilled labor group we rely on each day.

Financially, the first half of 2018 was very strong given these operational successes, with operating revenues of \$179 million. In fact, we set two monthly revenue records in the first half of 2018, with a new record in March being broken two months later with May revenues over \$32 million. Each sector of our business experienced revenue growth in the first half, led by the volume increases of our container business.

And reinvestment into our facilities using the cash generated through our operations also continues. At the July Port Commission meeting alone, more than \$70 million in capital project awards and advertisements were approved to keep commerce moving through Port Houston to maintain capacity for the high demand ahead.

We are READY!





Representatives from the U.S. Department of Agriculture and U.S. Food and Drug Administration provided best practices presentations and trade professionals from Guatemala and Ecuador provided insights on traditional and nontraditional exports.

ProEcuador, an economic development and supply chain organization for Ecuadorian exports, attended.

So did the Guatemalan Association of Exporters, AGEXPORT, a private, nonprofit institution. AGEXORT has more than 30 years of being an engine for the growth of Guatemalan exports, through processes and initiatives designed to give exporting entrepreneurs innovation tools and specialized training.

The Port of Houston region has four main reefer facilities that support refrigerated cargo operations.

"This event is a great way to discuss the importance of refrigerated cargo exports and the shipping channels and opportunities available in international perishables markets," said Ricardo Arias, trade development manager at Port Houston.

Preferred Freezer Services, one of the staple temperature-controlled warehouses on the Gulf Coast, opened a facility in 2017 that offers blast freezing, cooling and other refrigerated operations.

"From warehousing, storage and cross docking, the Port of Houston continues to be a top location choice for storing and transporting cold products," added Arias.



PORT HOUSTON AND PORT OF ACU ESTABLISH NEW PARTNERSHIP

A new cooperation agreement has been established between Port Houston and the Port of Acu in Brazil aimed at exchanging expertise and developing business.

Brazil has been a key trading partner with Port Houston. In 2018, Brazil was ranked as Port Houston's third largest in terms of containerized tonnage and second largest in terms on project and general cargo tonnage, according to Journal of Commerce PIERS statistics.

Port Houston staff has been working with various entities in Brazil to establish Houston as Brazil's North American distribution hub. As an emerging multi-purpose Brazilian port, the Port of Acu is considered by Port Houston staff as a key partner to help continue trade growth in that country.

Located about 150 miles north of Rio de Janeiro, the privately owned port is the largest in Latin America, with nine terminals and eleven operating companies within the port complex. The port has played a key role in Brazilian economic and technological development, improvement of port facilities and training. It is a strategic partner with Port Houston and the Port of Antwerp.

Port of Acu officials are slated to visit Port Houston in early October.



CORPS MAJOR GENERAL VISITS PORT HOUSTON

Port Houston welcomed Major General Scott Spellmon, deputy commanding general for civil and emergency operations with the U.S. Army Corps of Engineers, and his staff for a briefing and tour of the public and private terminals on the Houston Ship Channel.

The officials met with Port Houston Executive Director Roger Guenther and Channel Development Director Mark Vincent, who discussed the Houston Ship Channel, project economics and Hurricane Harvey impacts.

Port Houston is partnering with the Corps on a mega-study evaluating the feasibility of modifying the Houston Ship Channel, including widening and deepening of the waterway and other improvements.

Houston's energy, security and infrastructure makes the channel one of a kind with more than 190 public and private facilities along it.

CITY OF HOUSTON CHIEF RESILIENCY OFFICER VISITS PORT HOUSTON

Port Houston hosted a briefing for the City of Houston's Chief Resiliency Officer Stephen Costello June 29. Port staff highlighted the impacts of Hurricane Harvey on the Houston Ship Channel and discussed the need for strategies to minimize the effects of future flood and rain events on the waterway.

Much of the floodwaters resulting from Harvey that devastated the region's homes and businesses flowed into the Houston Ship Channel, depositing hundreds of millions of tons of sediment and debris.

Port Houston worked closely with the U.S. Army Corps of Engineers immediately after the storm to assess sedimentation impacts in the Houston Ship Channel and to mobilize available dredges to address the most critical areas as quickly as possible.

Port Houston is the local non-federal sponsor for the Houston Ship Channel and works with the Corps maintaining and developing the waterway. Similarly, the Corps is responsible for many of the flood mitigation projects in the region. Port officials and Costello discussed

"Shoaling on the Houston Ship Channel impacts not only shipping, marine operations and navigation, but it also affects our stakeholders, American consumers and the economy," said Vincent.

Port Houston works closely with the Corps to facilitate commerce and maintain navigation of the channel. Sediment control is of significance for resiliency efforts in light of future storm and flood events.

"Ships are getting larger," Vincent noted. "Planning for future improvements is key, and we want to make sure we have the adequate consideration for the mitigation of potential risks. We continue to work with the Corps to model the mega-study to meet the needs of the waterway."



the critical nature of both understanding and planning how the flood mitigation system interacts with the Houston Ship Channel.

Port Chairman Janiece Longoria has discussed the impact of Hurricane Harvey at numerous public meetings and highlighted the importance of planning for weather-related incidents.

"We must also look at improvements to this waterway that make it more resilient and reduce the impacts of future weather events," the chairman said during a recent meeting. "Part of the recovery is to harden this asset to make it better for the future."



TOP U.S. ARMY CORPS OF ENGINEERS OFFICIAL TOURS THE PORT OF HOUSTON

Ryan Fisher, the second highest ranking civilian in the U.S. Army Corps of Engineers, visited the greater Port of Houston Aug. 21.

The visit highlighted the national economic impact of the Port of Houston and how the region's employers and manufactures rely on the Houston Ship Channel, a federal waterway.

"The Houston Ship Channel is a national asset," said Port Houston Executive Director Roger Guenther. "The channel supports the top U.S. port in foreign waterborne tonnage and is critical to the nation's exports and energy security."

The Corps is responsible for maintaining and improving the Houston Ship Channel in partnership with the Port of Houston Authority, which serves as the local sponsor of the waterway.

Also in attendance was Enterprise Products Partners Chief Executive Officer Jim Teague and Houston Pilots Presiding Officer Mark Mitchem, who provided industry perspectives on the importance of the waterway. Enterprise Products has the largest ethane export port facility in the country located on the Houston Ship Channel. The Port of Houston has the largest petrochemical complex in the nation. The Houston Pilots navigate deep-water vessels into and out of the Port of Houston.

Port staff highlighted the port's recent terminal investments, petrochemical exports, Asian import growth and wharf cranes. The Corps officials also took a Port of Houston fireboat Tour and visited Enterprise Products' Hydrocarbons Terminal.

PORT HOUSTON VOLUNTEERS AT KEEGAN'S KITCHEN EVENT

Port Houston partnered with the Houston Food Bank on a new community project called Keegan's Kitchen Aug. 30, providing a total of 5,500 prepared meals to the Houston region.

The Houston Food Bank opened Keegan's Kitchen in 2017 with the purpose of providing up to 20,000 nutritious meals each day to children around Houston. The prepared meals go to participating Kid's Cafe locations, which include elementary schools, community centers and local YMCAs.

Nearly 70 Port Houston employees worked two different shifts throughout the morning at the Food Bank. One group prepared individual meals in Keegan's Kitchen, while the second group evaluated and sorted food, personal health and medical donations.

The Houston Food Bank hosts a number of programs specifically designed to engage and energize volunteers. In 2017, more than



50 Port Houston volunteers from across terminals created 3,500 backpacks filled with personal hygiene items for children who were affected by Hurricane Harvey.

"Not only does the Houston Food Bank do so much for our local neighbors, but they provide a meaningful and fun volunteer experience for our Port Houston team members," said Garret Berg, community relations manager for Port Houston. "Their impact on the community is through the help of many individuals, groups and companies."

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PORT HOUSTON'S EXECUTIVE DIRECTOR RECEIVES A HOUSTON BUSINESS JOURNAL HISPANIC HERO AWARD "MOST ADMIRED CEO" AWARD

Port Houston's Executive Director Roger Guenther was named one of the "Most Admired CEOs" by the Houston Business Journal Aug. 23. The honor is given to local executives who have provided contributions to company success and civic involvement and have demonstrated career achievement.

"This recognition is particularly important because it was Port Houston employees who submitted the nomination for Roger to receive this award," Chairman Janiece Longoria said at a recent public meeting. "We appreciate the leadership and vision that he brings to the port."

Guenther has been Executive Director of the port since 2014. With 30 years of experience at the port, Guenther brings operational leadership and a proven track record to the position. He is also the current president of the Texas Ports Association.

Port Houston is the largest port in Texas. As Executive Director, he is a leading voice on behalf of the interests of the port's eight public terminals on the Houston Ship Channel, in which is home to nearly 200 private and public facilities.

As well as leading his employees, Guenther and Port Houston staff work in collaboration with federal, local agencies and stakeholders to ensure the 52-mile long waterway is efficiently maintained and improved.

The Houston Business Journal event celebrates the achievements and success of Houston's top business leaders.

An independent panel of expert judges from multiple industries selected the honorees. The inaugural event was held at the Hilton Americas Hotel



PORT CHAIRMAN RECEIVES A COMCAST

Port Chairman Janiece Longoria was honored with a Hispanic Hero Award by Comcast Sept. 21.

Comcast paid tribute to individuals from the Hispanic Community who have demonstrated an outstanding commitment in making a difference in the areas of volunteerism, mentorship, advocacy and civic engagement. The event also recognized Hispanic Heritage

The 2018 honorees were judged on criteria that included their personal impact in the community, helping further the mission of a nonprofit organization and overcoming personal obstacles.

thrive along the Houston Ship Channel, visiting marshes like those near Pelican Island and restored marine habitats such as Evia Island. They can be found all year long along the Texas coastline.

The bird is a member of the pelican family, Pelecanidae. They are strong at swimming and flying and have unique bills and behaviors.

Considered an endangered species in the early 1970s, Brown Pelicans now

Port of Houston is Home to Brown Pelicans

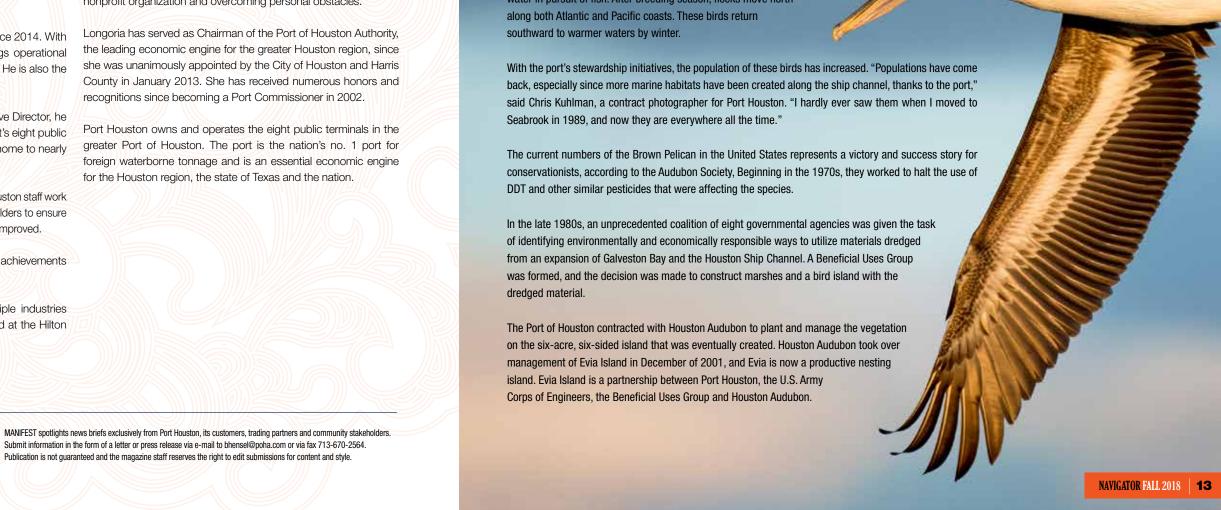
As the local sponsor of the Houston Ship Channel, Port Houston manages a number of environmental restoration sites and maintains thousands of acres of marsh habitat in Galveston Bay.

Brown pelicans live in a salty and wet habitat along the coast, from bays, beaches and oceans. Groups of brown pelicans fly low over the waves in single file, flapping and gliding in unison. The Audubon Society refers to the species as an "unmistakable bird of coastal waters."

Brown pelicans have a diet of various types of fish, including menhaden, smelt, anchovies and some crustaceans. They feed by diving headlong into the water in pursuit of fish. After breeding season, flocks move north along both Atlantic and Pacific coasts. These birds return southward to warmer waters by winter.



Submit information in the form of a letter or press release via e-mail to bhensel@poha.com or via fax 713-670-2564.







SHIP-TO-SHORE CRANES FOR PORT HOUSTON

The cranes will be able to load and unload vessels up to 22 containers wide. One of the cranes is equipped with technology to remotely operate the crane from a computer in an office setting rather than in the cab of the crane itself. These new cranes are yet another step to ensure Port Houston is ready for the growth and opportunities

Also arriving at the Bayport facility were 10 rubber-tired gantry yard cranes just days later. Five RTGs arrived in August and the other five were delivered in September. These cranes are needed at Bayport to meet the current and projected growth in the container business at the facility to further improve the vessel productivity and truck

The new assets at Bayport are state-of-the-art and will increase cargo-handling efficiency and capacity and support the port's infrastructure.

The three newest STS cranes will bring to a total number of 26 ship-to-shore operational cranes working at Port Houston's Bayport and Barbours Cut Container Terminals, 13 of which are Neopanamax.

Port Houston handles nearly 70 percent of container cargo transported through the U.S. Gulf. Containerized cargo includes shipments of everyday items used by retail customers including clothes, electronics, household

Increasingly larger container ships calling Port Houston require faster and larger cranes for more efficient containerized cargo handling to help get goods to retail stores and distribution centers sooner.

"We have been looking forward to receiving these cranes and to begin the commissioning of their operation," said Port Houston executive director Roger Guenther.

> Port Houston has been reinvesting in its facilities using the cash generated from its operations. More than \$70 million in capital project awards and advertisements were considered at the July Port Commission meeting to keep commerce moving through Port Houston and maintaining capacity for the high demand ahead.

> Further demonstrating its commitment to strategic investment, the Port Commission awarded a \$49 million construction contract for Container Yard 7 at the Bayport Terminal. This new construction will add 50 additional acres of container yard storage. area.

> The community was able to get a view of the ship-to-shore cranes on the Houston Ship Channel from El Jardin Park beach in Pasadena, while a number of media and port customers and operators enjoyed the view from a tent alongside wharf no. 2 at Bayport, some cheering as they arrived at the dock.

> Many Houstonians and visitors shared their photos on social media as the cranes arrived in Galveston and made their voyage to Bayport along the Houston Ship Channel.

Remote Crane Operations: THE FUTURE?

Given rapid advancements in technology, terminal operators and ports are continually exploring new opportunities, particularly when it comes to remote container crane equipment.

Port Houston recently invested in a remotely operated crane station with its most recent set of Neopanamax ship-to-shore cranes delivered in August.

Crane loading and unloading operations have been handled from a control room for years at terminals in some other parts of the world. As crane operators begin moving down from cranes to control rooms, ports are exploring how this could impact their business.

Port Houston's Technology Operations and Innovation team evaluates, implements and supports operational technology solutions that support the port's strategic plan. Moving toward this crane technology is a component of the port's infrastructure and growth strategic goals.

THE REALITY

Manual crane operators are required to look down at the containers to do their jobs. That can be physically taxing for them. Remote crane operations provide a more relaxing workplace with cameras that can see more of what is happening around the crane.

Remote operations still include a cabin-based control room, where the operator must do every move of the crane by hand – the only difference is that it is done in an office through fiber-connected equipment.

STILL GETTING THE JOB DONE

The manual sets and pickups of the crane are still done by hand. When the crane operator pushes the "autostart" button, the technology takes over as he or she starts to make moves and lifts.

BIGGER SHIPS

Currently, the distance is 120 feet from the manual operator cabin to the dock and another 100 feet to the ship. Remote operations offer a new way for the industry to remain competitive and efficient – while keeping the operator on track with his moves.

"As new technology is developed in the container business, we have to keep up with the market," said Mike Shaffner, director of technology operations and planning at Port Houston.

Operators supervise the crane motion via views from onboard cameras, which are often more comprehensive than views from inside the crane cabin.

With no operator on board, the crane can run faster and ramp times can be shorter, meaning shorter cycle times to unload cargo.

Port Houston and the International Longshoremen's Association will be testing the remotely operated crane station for several months before it is commissioned. The port currently averages 35 moves per hour on a manually operated crane, but that number is expected to improve even further.

TRAINING OPPORTUNITIES IN HOUSTON

In a related development, the West Gulf Maritime Association and Port Houston held an unveiling ceremony for two new crane simulators July 26.

The simulator equipment will support the workforce and train operators in the trade, giving them realtime experience moving and loading shipping containers. Trainees would have to travel to other states to receive this type of training.

Designed by GlobalSim, the simulators are configured with a 3 degrees of freedom motion base and offer high fidelity training with authentic controls, a student database and an instructor station.

PARTNERSHIP IS KEY

"This project is a symbol of our partnership for progress," said Shareen Larmond, president of West Gulf Maritime Association.

Port Commissioner Clyde Fitzgerald and Port Houston Executive Director Roger Guenther also commended the teamwork.

The simulators are expected to help the port continue to expand its container business. Port Houston handled more than 2.5 million TEUs in 2017.

"The port is constantly reviewing, analyzing and improving our operational and information technology platform to assure that we continue to be best in class in serving our customers and the maritime industry," added Shaffner.

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PLANES, TRAINS AND AUTOMOBILES: BREAKBULK MOVES AT PORT HOUSTON

A host of noteworthy cargo operations have been on display this year at Port Houston, showing the versatility of the nation's biggest breakbulk port.

Those moves actually have included planes, trains and automobiles, along with increasing amounts of steel cargo coming across the docks at Port Houston's Turning Basin Terminal.

The port also leases seven general cargo facilities to various operators, and part of successful breakbulk moves are made possible by the tenants and stevedores who run the terminals.

Over the last year, there has been moderate improvement for the breakbulk sector as the market is moving towards trust and transparency, Grant Wattman with Agility Project Logistics, Inc. shared during a luncheon in September organized by the Greater Houston Port Bureau that featured a breakbulk outlook panel.

Attendees learned that the demand for energy and oil and gas resources will continue to grow if fossil fuels and natural gas increase around the country. Wind energy is expected to spike in 2019. The panelists, including John Hark, Director of Chartering for North America with FH Bertling and Ed Bastian, Global Sales Director with BBC Chartering, noted that forward thinking, along with collaboration and innovation, will lead the business.

NOT THOSE TOYS YOU SEE IN MOVIES....

A number of major power transformers have been imported at the Turning Basin recently from Spain, Germany and South Korea, including one being loaded on a 16-axle car weighing 1,007,900 pounds and one on a 20-axle Schnabel Car weighing a total 1,332,900 pounds.

MORE AUTOS AT PORT HOUSTON

And the automobile trade continues to grow at the port since the development of the Bayport Auto Terminal, which was repurposed for RoRo operations. That terminal has seen more than 27,000 tons of autos this year alone.

The port's Turning Basin has seen steady auto volumes as well.

BAHRI'S BIG HEAVY LIFT

Bahri Logistics' M/V Bahri Hofuf V.16 discharged the heaviest piece of cargo the company has ever handled on its new state-of-the-art 26.000 dwt Bahri Class RoCon vessels at Port Houston's City Dock 31.

The cargo, which consisted of five heavy lifts ranging from 70 metric tons to 266 metric tons in two pieces, had a combined total gross weight of 690,335 kg.

PORT HOUSTON TO HOST SEVENTH BREAKBULK AMERICAS CONFERENCE

Shippers, cargo logistics companies, freight forwarders and others will come from far and wide to converge on Houston for the Breakbulk Americas conference, Oct. 2-4. The event is being held at the George R. Brown Conference Center and is being hosted by Port Houston for the seventh time.

Attendees will hear from industry experts during the conference sessions, which will be held on the center's exhibition floor. Those will focus on issues ranging from project freight and project to steel challenges to technology innovations. A range of workshops will be available for conventioneers looking to build their professional skills.

Last year, more than 5,000 maritime industry professionals, including general cargo owners, terminal operators, ports authorities, ocean carriers and logistics companies gathered at the annual trade show and exposition.

Port Houston Executive Director Roger Guenther will provide opening remarks.

ALL ABOUT RAIL, PLUS CARGO IN THE SKY

Meanwhile, a heavy railcar was loaded at the port's city docks on the Bahri Tabuk in May.

The S64 chopper, the "Goliath," arrived by AMASUS Shipping vessel, the M/V Eemslift Nadine in March and departed by City Dock 32 in the air. Heavy lift operations were performed by Schroeder Marine.

The port has moved airplane structures as cargo in the past, as well. A Rickmers Line vessel recently carried the fuselage of an airplane from Sport Hawk International Airlines, which was being exported to be made into a restaurant in Austria.

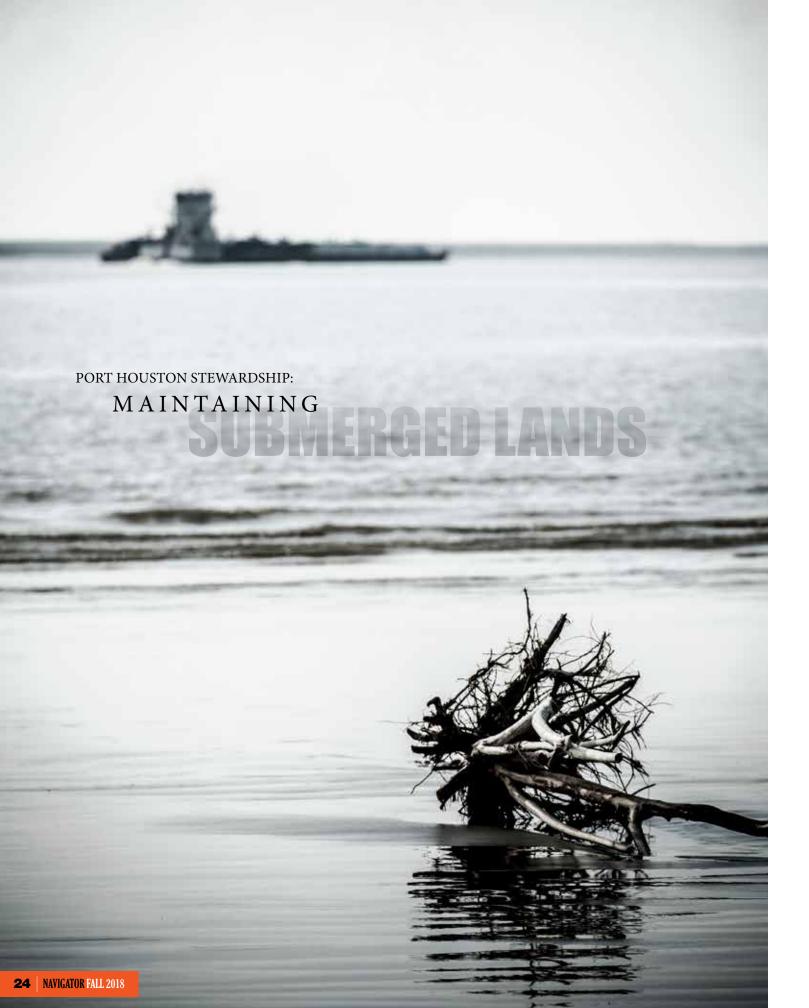
STEEL LEADING HOUSTON IMPORTS

The port's new tenant at Woodhouse, Richardson Companies, has been busy storing and moving steel since they began operations in early summer. "We've have not seen that much cargo flowing at Woodhouse in a long time. It's very exciting," said Randy Stiefel, Port Houston director of general cargo facilities.

Import steel continues to show solid growth. Port terminals handled more than 2.2 million tons of steel in the first half of 2018.

"There is continued strength in steel trade, mainly import pipe, of 2.1 million tons, which has grown 21% over last year," Port Houston Executive Director Roger Guenther noted during the July Port Commission meeting.

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With barge activity continuing to grow in the Houston region, hundreds of acres of submerged lands managed by Port Houston are taking on increased importance. That's why some new standards have been put in place for staging barges.

Port Houston has been responsible for maintaining and leasing submerged lands in the Houston Ship Channel region since 1927. These authorizations require permits and licenses for areas along the waterway.

More than 90 years ago, the Port of Houston Authority was given the responsibility to manage and regulate this function as the local sponsor of the Houston Ship Channel.

Submerged lands are the lands below the line of the higher high tide within the jurisdiction of the Port Authority that lie beneath the Houston Ship Channel and other waters such as Buffalo Bayou, as well as beneath the waterways tributary.

The port's property includes 42 miles of railroad right-of-way, Houston Ship Channel with tributary bayous and streams within Harris County, 7,000 acres of dredged material placement areas and all other Port Authority properties where other entities are permitted use by the Port Commission.

The Port Commission of the Port of Houston Authority recently adopted and approved barge fleeting standards as reasonable measures for implementation and management of barge fleet leasing in the ship channel region. The new standards are to be used by all public and private industry doing business along the waterway.

Barge fleeting is an activity that secures barges for storage for more than 72 hours and includes barge staging activities, shared Garry McMahan, program manager of channel development business for Port Houston.

"The barge fleeting policy is another effort that follows along our strategic goals of growth and stewardship," McMahan said. "We are doing our due diligence to ensure this management process is further supporting the livelihood of our assets."

The barge fleeting leasing program is the start of a larger submerged lands program that will encompass all private docks and wharves along the Houston Ship Channel and its tributaries. Newly leased barge fleeting areas coming online include Lost Lake area and Greens Bayou.

"Barges play an important role along the waterway and the flow of commerce." said McMahan.

The Houston Ship Channel has more than 200,000 barge transits annually, and the demand for barge fleeting has increased in the last several years.

Port Houston's channel development team also oversees licenses and administers permits for the construction of docks and wharves, and manages port-owned dredged material placement areas for private industry use.

The standards were communicated to industry stakeholders through organizations like the Lone Star Harbor Safety Committee, the Gulf Intracoastal Canal Association and the West Gulf Maritime Association. The standards were released for public comment in August.

"The port has always managed submerged lands from the beginning, but we are now doing it in a more productive, efficient way," McMahan said. "We've developed a process that promotes longevity, expanded use of our assets and enhanced safety along the Houston Ship Channel."



Despite the summer heat, Port Houston employees and their families rolled up their sleeves and worked together to construct 55 feet of new oyster bar and plant over 750 stems of cordgrass to create new marsh habitat.

Environmental projects like these play an important role in improving water quality and help keep the bay healthy and sustainable for the future. Oyster habitats are vital to the health of Galveston Bay, acting as natural water purifiers that effectively filter nutrients, fine sediments and toxins from the water column. In fact, a single oyster can filter up to 50 gallons of water a day.

WHY ARE OYSTERS IMPORTANT TO GALVESTON BAY?

Oysters are a valuable indicator species, meaning that their presence in the water can be used to gather information on the overall health of our bay and its waterways.

"We're proud to be back participating in our third year of this program," said Garret Berg, community relations manager at Port Houston. "The volunteer turnout was great and our team was able to construct several large sections of new oyster reef. These new portions of the constructed reef can provide habitat for up to 17,600 new oysters."

In addition to the volunteer project, Port Houston has a five-year lease agreement with the Galveston Bay Foundation (GBF) for its oyster shell recycling program. The property leased to the foundation is used to store, clean and cure the shells before they are returned to the bay to create new reefs.

"We truly appreciate the partnership we have created with the Galveston Bay Foundation, and enjoy the opportunity to play a role in this important environmental stewardship project," added Berg.

WHAT IS THE RESTORATION PROCESS?

Many of the oyster shells used in these projects are actually collected from local seafood restaurants that voluntarily participate in the program. The Galveston Bay Foundation staff works with these partners to accumulate tons of the 'shucked' shells before they are transported to a designated site to begin a six-month curation period. It is important to note, without oyster shell recycling, this crucial coastal resource would be lost to the landfill, which prevents the process of natural reef regeneration.

After each reclaimed shell has been properly cleaned and cured, they are sent to project sites in and around Galveston Bay for the purpose of creating new oyster bars. These shells are carefully put into mesh bags and then stacked in the shallow waters near the shoreline to provide new homes for oyster larvae, often referred to as spat. In addition to creating homes for new spat, the oyster bar plays an important role in providing habitat for other marine species like fish, shrimp and crabs.

The Galveston Bay Foundation is a nonprofit organization established in 1987 and operates under the state of Texas and has active community, conservation, advocacy, education and research programs.

ENERGY ACTIVITY HELPING PROPEL GROWTH AT PORT

An increased level of activity in the oil and gas sector is helping drive increased cargo volumes at Port Houston and the greater port, with the region's industrial real estate market churning strongly to maintain the expansion underway.

Just in the past year, the total amount of space under construction has more than doubled to nearly 7 million square feet, according to a new report issued by Cushman & Wakefield covering the second quarter of 2018.

"Demand for modern, state-of-the-art distribution facilities for industrial users serving the expanding petrochemical industry is driving new development near the Port of Houston," the report from Cushman & Wakefield determined. It said the Southeast submarket, which includes the Port of Houston, led the market in deliveries and in the number of projects under construction.

The greater Port of Houston is the largest petrochemical complex in the United States, and the second-largest in the world, behind Rotterdam. Petrochemical facilities along the Houston Ship Channel have been expanding in recent years and are starting to come online.

That means polyethylene resins, which are produced using ethane that is produced from natural gas wells, are projected to continue to increase, with much of that product expected to move in containers across Port Houston's docks for export to manufacturers overseas. Those resins in turn will be made into consumer goods and could be shipped back to the United States to be sold.

More than 1.2 million square feet of warehouse and/or distribution space was delivered in the second quarter and 3.5 million square feet is currently under construction, according to the Cushman & Wakefield report.

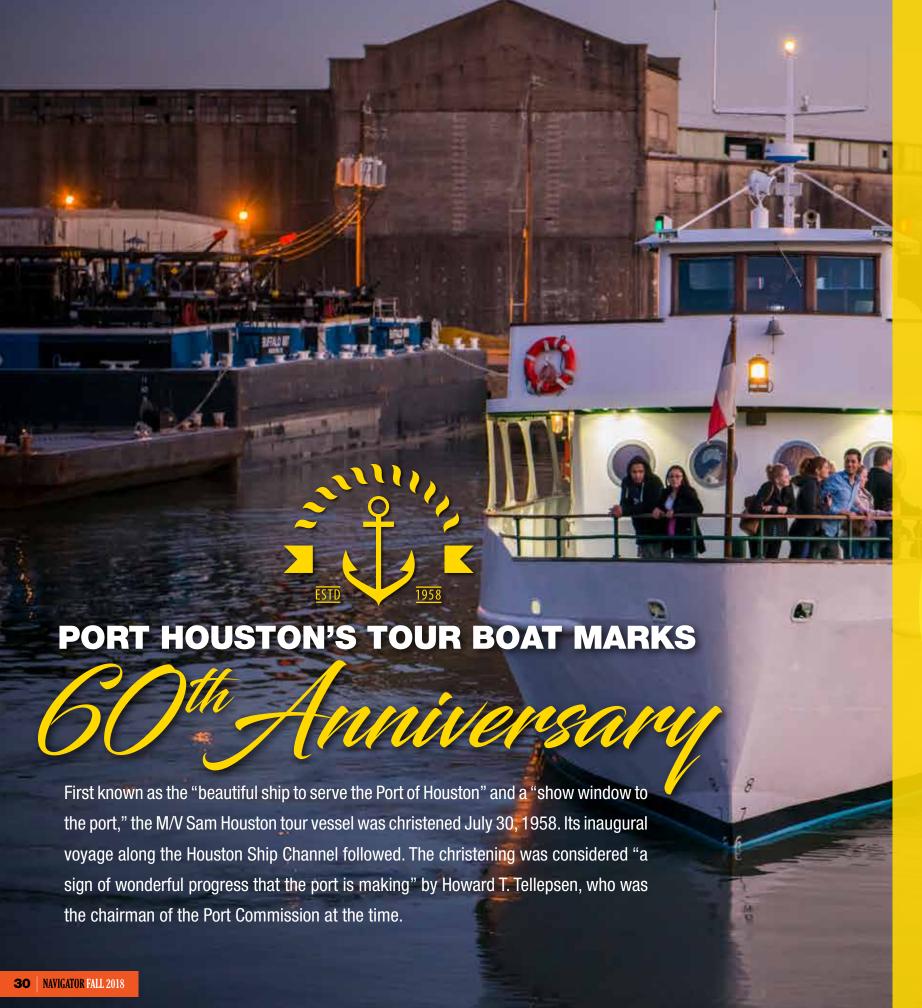
Increasing traffic at the Port of Houston, coupled with e-commerce and also population growth continue to drive new development in Houston's industrial market, the commercial real estate firm noted.

"Exports are driving growth in Houston and supported 10.9% of total employment in 2017," Cushman & Wakefield found.

The Houston Purchasing Manager's Index, which a leading indicator for regional growth, registered 56.6 in April. That was highest level that has been recorded since October 2014.

In May, the price for West Texas Intermediate crude oil hit \$70 per barrel for the first time since November of 2014. That was welcome news for many in the industry, because the recovery in the price of oil ramped up drilling and production. Port Houston saw steep declines in steel imports starting in 2014, which was a result of a reduction of oil and gas production activities, but steel, which moves in cycles in nature, has rebounded. Steel imports through June of 2018 were up 21 percent compared to the same period of 2017.

May also saw Houston employment increase 2.6% year-over year, with 79,200 new jobs.



Although the port officially began running tours along the ship channel in 1928, not until the 1950s was a vessel designed and built specifically to host community members. The M/V Sam Houston II was designed by L.B. Christensen Engineers and had replaced an older, repurposed, inspection boat of the same name that was in service for eight years.

The M/V Sam Houston was named after the legendary military commander who led the fight for Texas independence from Mexico and later statehood. Over the last six decades, the Sam Houston Boat Tour has become a staple of the Houston community, as the primary tool that helps Port Houston educate the public about the impact of the ship channel in the Houston region.

"This tour has been extremely popular over the years, and we are proud to continue the tradition of offering this tour experience, for free, to local residents and visitors from around the world," said Leslie Herbst, Port Houston director of community relations and events.

A POPULAR CORNERSTONE OF HOUSTON

For 60 years, the port's public tour has showcased the Port of Houston to nearly two million visitors. The M/V Sam Houston offers visitors a unique opportunity to get an up close look at one of the busiest ports in the country. Each year, nearly 30,000 visitors tour the Houston Ship Channel.

On average, Port Houston's M/V Sam Houston operates 10 tours a week with the ability to carry 100 passengers per sailing. Passengers on the Sam Houston Boat Tour have included royalty, political leaders, astronauts, celebrities and visitors from all parts of the world. Today, many organizations, groups and even public officials have toured the Houston Ship Channel on the boat, getting a bird's-eye view of the operational activity along the waterway and at the facilities surrounding it.

ENVIRONMENTAL COMMITMENT

As part of Port Houston's commitment to environmental stewardship, the vessel operates on low-emission fuel engines and generators. The environmental upgrades were made possible through grants from the Texas Emissions Reduction Plan and American Recovery and Reinvestment Act funding through EPA's National Clean Diesel Funding Assistance Program.

Port Houston also recently entered into an interlocal agreement with the University of Houston Graduate Design/Build Studio to design and construct an open-air shade structure at the Sam Houston Landing for a student support project, allowing the graduate students to gain hands-on design and construction experience.

One element of the structure design includes water retention tanks. Collected rain will then be reused on site to water plants and flowers that adorn the landing area.

PORT EMPLOYEES ENHANCE SAM HOUSTON LANDING

While the port continues to work on long-term plans for the pavilion area at Sam Houston Landing, port employees stepped up to enhance the area, making it more welcoming to the community. More than 50 employees volunteered their time participating in outdoor beautification projects. Some Port Houston team members filled new planters with flowers, while others sanded and painted benches, weeded or trimmed trees.

Additionally, two art projects were completed that will bring more color and character to the space. A new sign at the port's boat tour entrance was also installed, as well as a variety of light pole banners along the dock.

"Everyone who visits the port for a tour on the M/V Sam Houston deserves to have a welcoming and memorable experience," Herbst said. "This event allowed our Port Houston employees the opportunity to take part in projects which ensure that kind of experience for all of our quests."

CELEBRATING 60 YEARS OF SUCCESS

Port Chairman Janiece Longoria highlighted the tour's significance to the port at the July Port Commission meeting.

For the month of August, all public tours aboard the M/V Sam Houston honored the anniversary milestone. The inside cabin of the vessel was decorated, while all guests received a special giveaway and sweet treats during each voyage.

To wrap up the anniversary festivities, Port Houston employees and their families participated in special tours, embarking from the dock adjacent to the Battleship Texas, for a special journey along the ship channel. This unique opportunity allows Port Houston team members to tour a section of the channel between the San Jacinto Monument and Port Houston's Barbours Cut Terminal.



PORT HOUSTON PARTICIPATES AT

GULF COAST INDUSTRY FORUM

Petrochemical, maritime and logistics professionals joined together with prominent elected officials during the annual Gulf Coast Industry Forum.



Organized by Economic Alliance Houston Port Region, the two-day conference provided regional forecasts, outlooks, concerns and opportunities in the industries along the Houston Ship Channel.

FOCUS ON INFRASTRUCTURE AND GROWTH

Port Chairman Janiece Longoria provided the keynote address on day one of the conference. "2017 was another record year for Port Houston's performance. Representing nearly 80% of Port Houston's gross revenue, containerized cargo continued to be our fastest-growing business line," said Longoria.

The port continues to be the dominant port of export for synthetic resins, including polyethylene that is exported in containers, she said. Population growth is driving goods and the energy-related cargo is expected to increase, which means more cargo such as resins, will continue to be transported by ships.

The chairman also mentioned the need for sustaining the Houston Ship Channel for the future as it is essential to the nation's energy and economic security.

The president of Economic Alliance Houston Port Region, Chad Burke, and committee members presented Longoria with an antique map of the Houston Ship Channel, citing her leadership and service on the Port Commission.

HOUSTON: DRIVING FREIGHT MOBILITY

Port Houston Executive Director Roger Guenther served on a freight transportation panel during the conference, along with representatives of Harris County, the Texas Department of Transportation and Jetco Delivery Co.

"Efficient movement of freight is critical to our region and across the state," said Guenther. More than 6,000 trucks move through the port's container terminals a day, he noted.

Brian Fielkow, president of Jetco Delivery Co., lauded Port Houston's emphasis on the truck gates at its container terminals.

"The investment that the port has made in technology is remarkable," Fielkow said.

Throughout the event, various legislative, petrochemical and workforce sessions were held

EDUCATION AND THE WORKFORCE: A PRIORITY FOR HOUSTON

A panel focused on workforce development in the petrochemical industry highlighted the importance of keeping the industry stable through training and leading the next generation of workers.

Dow Chemical has an apprenticeship program through San Jacinto College for certain trades so trainees can work and apply knowledge in the classroom. This program has helped their employees be prepared for these technical roles with a smooth transition period after learning the skills required. Port Houston has a similar apprenticeship program that started in 2017.

"We want to build relationships with students early on for these upcoming positions," added James Rhame, vice president of polymers for Flint Hills Resources.

Safety is also an important element for all organizations along the Gulf Coast as it comes with the nature of the work involved. "Safety is a part of doing business. It is good business," noted one of the panelists.

Texas Lieutenant Governor Dan Patrick provided a keynote address to the attendees on day two of the event and Houston Mayor Sylvester Turner discussed hurricane/storm resiliency and future pathways to careers. Ryan Sitton, commissioner for the Texas Railroad Commission, highlighted Texas' global energy impact.

Economic Alliance Houston Port Region is a nonprofit organization that provides professional economic development services for over 200 members as well as public policy and education resources.

The conference was held at the Pasadena Convention Center Sept. 19 and 20.



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SPOTLIGHT



TEXAS SECURITY SHREDDING: HELPING ORGANIZATIONS DO THE RIGHT THING WITH RECYCLING

In the workplace, sometimes paperwork and files can be so overwhelming that you just recycle what you can.

Paper shredding is an option when trying to stay organized and cleaning up old documents that are sensitive and should not be thrown in the trash bin.

Port Houston has been maintaining its environmental stewardship and document control with shred-a-thons, which are employeewide events where employees recycle copies of paper or cardboard with the help of Texas Security Shredding.

Texas Security Shredding is AAA-Certified by the National Association for Information Destruction. Their team of professionals makes document shredding programs possible for organizations. Texas Security is also a certified HUB organization.

"This shredding program increases the recycling that we are doing and having it available onsite is a bonus so more employees participate," said Kelli Gallagher, environmental compliance coordinator at Port Houston. "We do have sensitive documents, and this process protects them."

Shredding practices are part of the port's recycling stewardship program, along with efforts to reduce printing. In 2017, Port Houston

recycled more than 71 tons of office paper. On-site shredding also reduces a variety of risks ranging from vehicle damage to identity theft.

As principal for Global Document Control and Compliance at Texas Security Shredding, Patricia Vice currently develops records retention programs and implements risk management programs to ensure legal compliance for a broad spectrum of leading companies throughout the United States.

"It is paramount for organizations to have evidence and all the necessary materials for proper shredding practices," said Vice.

Patricia is known in the information management industry as one of the nation's leading records and information management consultants.

"Shredding services is good green business," added Vice. Texas Security Shredding is a member of the port's small business development program, noted Pedro Gonzalez, small business program manager at Port Houston.

"Working with Texas Security Shredding has been a very positive experience," Gonzalez said. "They have outstanding customer service. The onsite shredding trucks effectively meet our paper recycling needs, and their staff is always prompt and courteous."



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