Port Bureau News

July 2021



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A.J. "Jim" Teague, Co-CEO of Enterprise Products Partners L.P., is the Port Bureau's 2021 Maritime Leader of the Year. He will be honored at our Annual Dinner on August 21st. The Port Bureau's Board of Directors selected Jim as our honoree for his outspoken advocacy and financial investment to improve the Houston Ship Channel, and for rallying industry to work together to achieve that goal. Photo courtesy of Enterprise Products.



Maintaining business continuity through disruptions takes careful planning. A business continuity plan details processes and procedures that will help keep operations up and running or restore them as quickly as possible in the event of a major disaster. But what happens when things don't go as planned? Read more on page 6.

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Captain's Corner

Adventure Lays Ahead



Diehl Family Photo

My mom passed away last year at the age of 91. She had a long, complete life and died with no regrets, knowing that she was deeply loved. Since COVID had closed New York State at that time, we were not able to gather as a family until the end of June to hold a memorial mass. Our picture here shows the wake she and my dad will leave behind – 43 family members and growing!

Mom was feisty, patient, and full of adventure. By feisty, I mean she was a strong woman, tough and independent. Her candor was sometimes blunt but never unkind. But the attribute that I admire the most was her patience. I do not ever remember her complaining when life threw her curve balls, or in the daily grind of running that house of chaos with 9 rowdy kids. She encouraged us to get into the game of life, to do our best, but not to take it too seriously.

You may recall that I entered the Coast Guard the day after high school graduation. I was 17 and missed my family and friends. I tried to quit. She told me great adventure lay ahead for me, to stay patient, and be enthusiastic. Later, as I became more persistent in quitting, she and my dad convinced my younger brother, Bert, to join me by telling him that I was having a blast. She then told me again to be patient; when Bert arrives, it will get better. She was right, and we both had long careers in the Coast Guard.

In my Port 101 class in early June, we looked at the Suez and Panama canals. I spoke a lot about Ferdinand De Lesseps — the Frenchman credited with building the Suez Canal and beginning work on the Panama Canal. He led a colorful, adventurous life that can be defined by these two great maritime canals. Noted for his energetic pursuits, Lesseps, too, believed great enthusiasm and patience were required to accomplish anything great in life.

In our port community, we stand at the crossroads of our own maritime adventures. The decisions we make today will have a tremendous impact on tomorrow. We know must innovate to meet demand and stay competitive, making numerous goals compete for our attention and our pocketbooks. Two on the list are worthy standouts: digitizing the port and Project 11.

Both are imperative projects for the future of our port. Both require investments of time and money – and show a bit of uncertainty as to the clearest path for the best ROI. Both have the potential to change the way we operate. Both will have a lasting impact on our region, our state, and even our nation. Both require the great patience and enthusiasm of De Lesseps.

Both may also require some of my mom's advice in that we all need to get into the game and try our best. Her comment about not taking it too seriously also plays a part here, as I believe she would advise us to seek fellowship and have fun in the adventure. Admittedly, it's counsel that might be easier said than done at times, but so helpful when hitting roadblocks in the journey.

To that end, I encourage you to bring your enthusiasm and your

patience to the tasks at hand with the Port Bureau. They are qualities that keep us fueled for success, and teaming up together to carry a little "fun" into the process will make us a powerhouse for accomplishing our goals. Join us we as work to advance progress and bring more business to the port region. I assure you: great adventures lay ahead!



CAPT Bill Diehl USCG (Ret.), P.E. GHPB President

Port Watch

A June Swoon



Long days, short nights, summer swelter, and vacation flights. That's June for you. The start of the hurricane season and the arrival of Greek-lettered viruses poised to precipitate yet another run on face masks. Fortunately, June was also the harbinger of good news on the navigable waters that wend their way into the Texas ports as there was a flurry of activity that pushed three of the major ports into positive territory for the year.

The port of Corpus Christi squeaked out a new monthly arrival high for 2021 with a 4.4% monthly increase. That was more than enough for the port to exceed 2020's year-to-date pace by over 4%. Galveston was also in the red vis-à-vis 2020 until the June arrival count was a wrap. After a 6.3% monthly arrival uptick, Galveston broke free of the COVID millstone and managed a 1% year-over-year gain. While the Port of Freeport did not log a monthly increase, its arrival count still hit triple digits despite a 2% wane. Freeport remains in the lead with the highest year-over-year percentage increase which climbed an

additional 2% and currently stands at 6.3%.

Brownsville suffered its second monthly drop – the most recent was 5%. June's arrival count was the lowest for the year. Indeed, Brownsville has had better years as it currently holds the largest year-to-date lag of over 26% below 2020's arrival numbers. Texas City, on the other, hand registered a rather impressive 20% monthly jump replete with a new monthly high arrival figure. The dramatic uptick wasn't nearly enough to offset the malaise of the last 4 months; however, it knocked off over 7% from its previous year-over-year deficit of 19%.

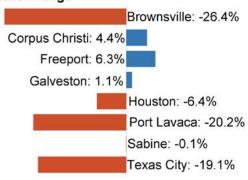
Just as Texas City benefited from a more expensive barrel of oil, so, too, did Sabine reap a bump in trade as larger volumes of oil flowed through the port. This was particularly evident by the number of tanker arrivals in the port which crushed its previous high as reflected in a 24% jump. Interestingly, general cargo arrivals also posted a

monthly high for the year. All in all, the port's most recent 2% lift in arrivals nearly erased the year-over-year gap. Sabine's 2021 ship count is merely one below that of 2020's.

Maritime trade activity to and from the nation's largest port complex was unusually impressive. It is rare that a summer month's arrival numbers eclipse that of March or April. June did just that with a tally high for the year, adding an additional 2% monthly gain to that of May's 10.6% rally. Not surprisingly, June's bounty could not lift Houston to the positive side of the year-to-date ledger. Nonetheless, it wiped out nearly a third of its deficit which remains at 6.4%. In light of the overall numbers, it stands to reason that most of the vessel categories are off when compared to the prior year.

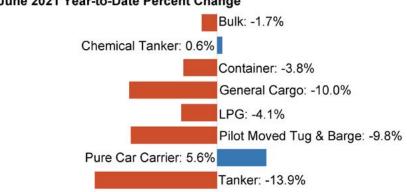
That said, there are a couple of vessel types that continue to outpace their 2020 numbers. Chemical and cars remain ahead of last year's count to the tune of less than one percent and 5.6%

Deepdraft Vessel Arrivals by Port June 2021 Year-to-Date Percent Change



Source: Greater Houston Port Bureau Marine Exchange of Texas





Source: Greater Houston Port Bureau Marine Exchange of Texas

respectively. While the former is an export play, the latter is most definitely an import one. Another indicium of the import-export trade picture is embedded in the flow of TEUs. After chalking up a 7% rise in the number of container ship arrivals into the Gulf's largest container port, 2020 is still outperforming the current year by nearly 4%.

In today's world with larger ships, it is paramount that one focus on the actual number of TEUs landing on the docks. What did that look like in June? Far better than the hull count! The container count was up 2% for the month and remains well above 2020 by 13%. That certainly bodes well for the regional economy. The picture becomes a bit more unsettling - from a trade deficit perspective - when one parses through the TEU numbers. Specifically, for the first 6 months of the year, the full import TEU count is an impressive 32% higher than the prior year while full export TEUs are off 12%. To drive home that even more, one could posit that Houston's most robust export commodity these days is empty shipping containers which are an unimaginable 239% ahead of 2020's count. Ultimately, the demand of the consumer on this side of the globe cannot be sated with the current inventory of containers on the other side of the International Date Line.

Not to fear, vessels laden with LPG. crude and refined petroleum products are still aplenty across the Houston Ship Channel. The LPG vessel count tied its March high after an 11% monthly gain. Tankers were only off by 1% over the last month but trail 2020's count by 14%. Bulkers – up until June – had an edge on 2020's numbers until its most recent fall of nearly 7%. It now trails last year by roughly 2%. On the tow side of the trade picture, blue water tug and barges saw back-to-back monthly improvements. The most recent one stands at 18%. Juxtaposing this year against the last reveals that many more monthly gains are in order before this tranche of vessels improves upon 2020's stats. The same can be said about the inland tow numbers which eked out a slight monthly increase. The bright side of the activity is that the tow count has logged four consecutive monthly gains. The reality is that 9% fewer tows have crossed the Houston Ship Channel when compared to last year.

Overall, vessel activity is certainly heating up; along with the waters of the Gulf of Mexico. Mind you, as many an old salt will tell you, the two full months of summer are rarely known for setting trade records on the waterfront. A hurricane or two, the annual trade respite, a maniacal cyberattack or a new strain of virus, for that matter, could quickly derail pent up demand or momentum. Then again, it could be nothing more than everyone departing for summer vacation and laying low until the fall trade frenzy.

until the fall trade frenzy

Tom Marian
Buffalo Marine Service
buffalomarine.com



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Business Continuity and Risk Management



Photo courtesy of Higginbotham

It's easy to plan for good times. When everything goes as it should, you can focus on growing your business and meeting your corporate objectives. But what happens when things don't go as planned? Maintaining business continuity through disruptions takes careful planning.

A business continuity plan details processes and procedures that will help keep operations up and running or restore them as quickly as possible in the event of a major disaster.



Business Continuity Plan Risk Assessment

To be prepared for various risks, you first need to know what those risks are. Disruption can come from many different causes, including man-made, natural and technological events.

- Fire: Fire risks include building fires and wildfires. A wildfire
 in the area could cause smoke damage and prompt evacuations
 even if the fire never reaches the property. So also consider
 how evacuations and smoke could impact business operations.
- Natural Disasters: Hurricanes, tornadoes, winter storms and other storms may cause property damage, force business closures and prompt evacuations.
- Equipment Failure: Every type of equipment has some risk of failure. Consider how failure of HVAC systems, office equipment, manufacturing equipment and other systems could impact operations.
- Power Outages: Power outages may be localized or widespread, and they may be short or long-lasting. Consider how a power outage would impact operations.
- Cyber Security: A cyber attack is any computer-based attack on a technical asset. Examples of cyber attacks include ransomware attacks, data theft, SQL injections and distributed denial of service (DDoS) attacks. At best, your technical infrastructure will be at limited functionality until the issue is resolved. At worst, if you don't have a data backup, you could potentially lose access to all your business data.
- Global Pandemics: An outbreak of a virus or other communicable disease could have a major impact on your business. Consider how stay-at-home orders, as well as outbreaks among workers or customers, could impact operations. Pandemics can throw a wrench in your business plans from all angles and directions. With citizens forced to stay home and do as much work from there as possible, to increased demand for certain items and decreased supply due to manufacturer shut-downs or disruptions across the supply chain. One of the most important plans to put in place if you fear a global pandemic is how your people will communicate with each other and conduct necessary business offsite. It's also important to have options when it comes to supply in case your supply chain is disrupted.
- Civil Arrest: Protests, riots and other forms of civil unrest could cause curfews, business closures and property damage. Consider the possible impact on your business operations.
- Terrorism or War: Bomb threats, mass shootings and other terrorism or war threats could impact your business, employees, customers and daily operations.
- Supply Chain Disruption: If your business could not get the supplies or equipment needed, consider how business operations would be impacted.

Prepare for Risks and Create a Business Continuity Plan

Once a risk analysis has been conducted, the next step in a business continuity management program is preparation and risk management. Creating a business continuity plan is, admittedly, probably not the most fun day you'll have at work. But it is a critical piece of running a resilient business, and it's important that you, your business continuity team and the rest of your staff take this seriously. Consider the following when putting together your business continuity plan.

Identify Objectives and Goals of the Plan

Business continuity management extends beyond your information technology department and related IT systems — it applies broadly to all critical business functions, including human resources, operations, public relations and more. At the highest level, the objective of creating a business continuity plan is to keep essential business processes running or minimize disruption.

But every business is different — so you'll need to identify the goals and objectives most important to the way you operate. Those goals will guide your risk assessment, the business continuity planning process and potential recovery strategies.

Establish an Emergency Preparedness Team

Select a few cross-functional managers or leaders, and anyone else you identify who may bring something valuable to the table. Make sure someone is designated as the leader to keep things moving forward and make decisions when necessary.

Perform a Risk Assessment and Business Impact Analysis (BIA)

Here's where you'll identify the biggest potential threats to your business, then research and analyze them thoroughly. Discuss with the team what would happen if you have to reduce, modify or eliminate essential services or functions. Be sure to document all the identified issues and related business impact.

Identify Essential eCommerce Business Functions

You'll have to determine how your organization will maintain essential services/functions in the event of an emergency. Here are some of the essential services and functions that you'll need to have a plan for:

- Inventory Management and Supply Continuity: Think about what happens when you encounter a product shortage. Supply chain issues are common in disasters like major weather events or pandemics. During a disaster, will you have enough inventory? Do you have an inventory management tool or system to help manage inventory? Do you have a plan for times with low or no inventory?
- Order Fulfillment and Shipping Deadlines: If a crisis hits, can
 you still fill orders and meet shipping deadlines? It may be
 helpful to diversify shipping providers. If you use a 3PL, ask
 them about the steps they take toward business continuity to
 gauge whether they'll be able to fulfill and ship in disaster
 conditions.
- eCommerce Platform Functionality: If a crisis were to happen, can you adjust your eCommerce platform to show out-of-stock items? Can you handle an influx of customers in a situation where supply is greatly increased? Do you have strong cyber security and all of your data backed up?
- Maintaining Customer Service: During a crisis, customers need transparency and empathy. You'll need to provide a communications plan for your marketing/communications teams and your customer support team. You may need to bring on more personnel to answer customer questions.

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Prepare a Plan for Each Essential Function or Service

Your eCommerce engine runs as a combination of parts, including:

- Customers
- Team members
- Suppliers/subcontractors
- Inventory
- Shipping

Each of these parts has to have its own plan. How will you address the situation with your customers? Does that communication plan change when it's the kind of disruption that may have also put their lives in danger? (E.g., as we deal with pandemic conditions, our customers are dealing with that too — and we have to be empathetic as well as informative in every interaction.)

Will you be prepared to switch to another supplier to make sure you don't run out of inventory? Do you know what your options are if your shipping partner experiences a disruption?

Review and Make Sure Every Business Function Has Been Addressed

Leave no business function out of your plan, but that doesn't mean that one doesn't become more important as you look for ways to operate during disruption. You'll want to make sure you've documented the following:

- · Level of business risk
- Impact on employees and customers, and how you'll communicate with them
- Emergency policy creation
- Financial resources that can be tapped into in the event of a disaster
- External organization or community partners who can work together with you to be mutually beneficial

Train Staff, Test, Revise and Update the Plan

Present the plan to all your stakeholders, and suggest being proactive by performing trial runs for a gut check that each part of the plan works as it should. This will help you identify any missing aspects or weaknesses. Then, once you've made any updates based on the feedback, begin to train all staff accordingly.

Implementation, Training and Testing

Once you have your business continuity plan written, implementation is the next step of the business continuity management program.

- Map out the logistics of implementation. Who is in charge of each step? When will actions occur? What resources will be needed at every step?
- Train everyone involved. Everyone who will be expected to play a role in business continuity efforts should be trained so that they know exactly what they will need to do.
- Iron out communication strategies. During an emergency, communication can become challenging. Regular lines of communication, such as telephones, may not be working, and contact information may not be readily available due to power outages, equipment failures, business closures or evacuations. Make sure you have plans and backup plans for communication.
- Practice the plan and conduct drills. It is easy for confusion and panic to overwhelm people when a crisis occurs. Practice

drills may help your organization avoid this reaction and ensure that everyone knows what to do and how to do it. Drills can also help you identify problem areas where more preparation is needed.

Reassessment, Management and Business Continuity

After you've performed a risk assessment, written a business continuity plan, implemented the plan, conducted training and carried out practice sessions and drills, you may think you're done. Not so fast. Business continuity plans are not a one-and-done task. Risks evolve and circumstances change, so you will need to review and update your plan. This should be done periodically. It should also be done after any major events that could require additional planning, such as changes to operations or the emergence of new risks.

When reassessing your business continuity plan, ask yourself these questions:

- What disruptions have occurred? How did these disruptions impact business operations? Was the business continuity plan carried out successfully? Was there any room for improvement?
- What new risks have emerged? Consider how technological, human and natural risks have evolved and how they could impact business.
- Have business operations changed? As a business grows or changes focus, the business continuity plan may need to be revised to reflect the new priorities.
- Are there new resources available? Consider how these resources could be used to improve business continuity planning.
- Is your insurance coverage still adequate? Consider, for example, whether there is coverage for emerging risks, whether your terms of coverage have changed and whether you need higher limits.

Planning for Whatever Lies Ahead

We cannot predict the future. However, there's no question that every business inevitably faces exposures such as natural disasters, equipment failures and cyber attacks. *Will you be ready*?

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Rice Business Executive Professional Development Scholarships to be Awarded by Port Bureau.

Apply by September 24



The Greater Houston Bureau will award scholarships to our membership professional leadership reater Houston development at Rice Business Executive Education's Corporate Innovation program October 11-13. Each scholarship

is valued at \$3,650 and includes full tuition, class materials, and daily breakfast, lunch, and refreshments.

Innovation has become a mandate to ensure competitive advantage and profitability in today's complex business environment. The Corporate Innovation program equips participants with a comprehensive framework to successfully manage innovation at all levels. The highly interactive learning environment combines scientifically proven approaches to innovation with actionable tools to accelerate the application of corporate innovation practices for participants and their respective organizations. The program is led by Dr. Jing Zhou, the Mary Gibbs Jones Professor of Management at the Jones Graduate School of Business at Rice University.

Professionals employed by Port Bureau member companies can apply or nominate a candidate from their company. Program

participants should be leaders in their companies who can leverage proven corporate innovation models, develop strategies for creating and sustaining an innovation culture, and create new or improve existing products and services. For more on the program visit, https://business.rice.edu/executive-education/openenrollment-programs/corporate-innovation.

Port Bureau members will receive an email announcing the opening of the application. All applications or nominations must be received by the Port Bureau by September 24, 2021. Scholarship awards will be announced on September 30, 2021. For more information, email info@txgulf.org or call (713) 678-4300.

Executive professional scholarships have been generously underwritten by Rice Business Executive Education, Rice University.





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2021 MARITIME LEADER OF THE YEAR

JIM TEAGUE

CO-CEO, ENTERPRISE



A.J. "Jim" Teague, Co-CEO of the general partner of Enterprise Products Partners L.P., is the Port Bureau's 2021 Maritime Leader of the Year. He will be honored at our Annual Dinner on August 21st. The Port Bureau's Board of Directors selected Jim as our honoree for his outspoken advocacy and financial investment to improve the Houston Ship Channel, and for rallying industry to work together to achieve that goal.

Jim was elected chief executive officer of Enterprise Products in January 2016 and has been a director since November 2010. He has described his work at Enterprise as "a calling" and focuses on leading the commercial and operations/engineering functions of the company with an enthusiasm that reflects his words.



You were born/raised in Louisiana, graduated from East Texas Baptist University, and served as a naval officer and in an attack helicopter squadron in Vietnam. What steered you into the oil/chemical field?

I steered through selling life insurance to selling soap powder for Lever Brothers; I sold for the *National Enquirer* and then a greeting card company. I was fortunate enough to get a job selling pharmaceuticals for Dow Chemical. I worked my way up to the chance for a spot in hydrocarbons, eventually landing a position as LPG supply manager. When I accepted the job, I had to go back to my desk and call a friend to ask what LPG was! But, it turned out to be a good fit, and I rose to become a vice-president in Dow hydrocarbons.



Jim receiving his commission as a Navy officer in 1968



Left to right: Jim, his mother, Hilda and brother, John

You are a self-made man and were expected to work for things you wanted while growing up. What experiences and lessons played a vital role in getting you to where you are today?

Growing up, my dad worked for the railroad after serving in the Army during World War II, and we lived in many places along the railroad. I never lived in one place more than three years. I graduated from high school in Shreveport – which just happened to be where I was born. I have had a job since I was 13, when I threw newspapers. I also worked at a TG&Y.

I think the lesson is that you work for what you get. There are many things you can't control, but you do control how hard you work. I made up my mind that I was going to put Dow in a position where they had to do something with me! I think what got me where I am is I just kept working – and working hard.



Jim fishing in the Gulf of Mexico

Why do you do what you do? If you weren't Co-CEO in the midstream market, what profession might you be in?

I do what I do because I have fun! I love it! I can't imagine getting up in the morning and not having anywhere to go. At Enterprise, we have people I enjoy being with, and I enjoy what we do. I think we've made a difference.

If I had traveled a different path early on, I believe I would have made the Navy my career. I had originally thought to stay in the Navy. I loved being a naval officer but my wife wanted to go back to Texas so I got out. My family has been a military family, and some have made it their career. My son just recently retired as a Lt. Colonel after 22 years as an Army officer.



Jim and his son Casey, an Army veteran and vice president of Enterprise's trucking group

You credit working for Dan Duncan for 10 years as providing you with an educational experience that proved to be a graduated education beyond any doctoral degree. How and what key lessons were learned?



Jim stands next to a portrait of Enterprise co-founder, Dan Duncan

One of the first things I learned from Dan was that details matter. He really expected you to be in the 'weeds' of your business and to know everything going on. He also had a laser focus on costs.

He believed in building relationships. I thought I was pretty good at it, but he was the master. Dan was not interested in just 'the deal' – he was interested in what other deals it would lead to. He was a visionary. Look what we became.

Those are just some of the lessons. I just enjoyed him, even when he was ticked off! We miss the heck out of him, but he is still in the Enterprise DNA. Sometimes if there is question as to what direction we need to go in a deal or project, we step back and ask: what would Dan do – and then we move ahead.

Since Dan passed away in 2010, Enterprise has been led by his oldest daughter, Randa Duncan Williams, as our Chairman. In Enterprise's early years, she grew up with the company's business literally being done at the family's kitchen table. Combined with her experience as an attorney and later as an executive at Enterprise, Randa personifies the Enterprise Model that includes a commitment to personal integrity, perseverance and hard work. She has also been a catalyst for Enterprise's support and advocacy for the Houston Ship Channel. She is at work every day, attends most every meeting and is a big reason for our success and the continuation of Dan's vision.

What major issues in the energy evolution do you see today? How are you working with others for long-term solutions?

We seem to be trying to transition – or evolve – to something that, frankly, isn't even here yet. We are looking at things, but you're not going to replace fossil fuels. We don't get enough credit in the oil and gas industry for the good we do. The oil and gas industry in the U.S. has made the lives of a lot of people better. You go to India and look at the poverty there. It's like nothing you've ever seen. They have converted 150 million homes from burning wood, animal waste, and coal to cooking with LPG. That's only 50% penetration.

We are involved in exploring whether we can make a business out of carbon capture and carbon sequestration. We also have a group working with a couple of chemical companies to see if there's a place for hydrocarbons. We have joined the Alliance for the End of Plastic Waste. As of yet, we are the only midstream company to do so.

We are going to be using a lot of crude oil for a long time. By 2040, crude oil will be used more than it is today. The growth of propylene and ethylene in the petrochemical supply chain for manufactured goods we can't do without has been exponential. Find me a medical device made of plastic that doesn't have a hydrocarbon component to it. You try to do away with it, and we are going to be carving out trees to make canoes!



Jim was a keynote speaker at CERAWeek in 2019

You have a 96% approval rating from Enterprise Products' employees on Glassdoor. How do you receive such high ratings when the CEOs from most large companies don't? You are obviously well-liked.

This company is truly a team. I believe the approval rating says more about the culture of Enterprise than any one individual. That is what they admire. I strive to be visible in every part of the company each day. Small things count. I'm never the first one in the elevator; I'm holding the door. If we're out to lunch and I'm not driving, I have the junior exec in the front seat. It is important to interact and, most of all, to show respect.

Of all the honors you have received, which honor has meant the most to you, and why? (We exclude being named the Port Bureau's 2021 Maritime Person of the Year.)

Houston wouldn't be Houston without the Ship Channel, so I am very honored by the recognition from the Port Bureau.



I've been selected for the 2021 The Petrochemical Heritage Award. It's presented with the Founders Club each year at the International Petrochemical Conference, held by the American Fuel and Petrochemical Manufacturers. They are a petrochemical organization. I like that because that's where I grew up.

You have children, grandchildren, and great-grandchildren. What kind of life legacy do you hope to leave with them?

My family is the most important thing in my life. We're all very close. I believe the foot prints we leave define our legacy. I'd like to leave footprints that are reflected in their work ethics and their values.

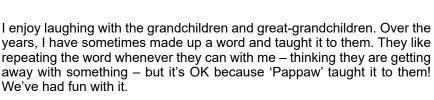
I enjoy them. They are my best friends. I talk to my son and one of my girls daily, and I talk to my other girls at least every week. My grandkids like to call when they want something – my great-children aren't old enough to do that yet!



I enjoy l years, I

Jim and his wife, Tuu, a native of Thailand, were married in 2017

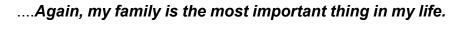
Family portrait of Jim with his son, Casey, and grandchildren Nathan (front) and Parker



Jim cuddles with Mirabelle, one of his four

great-grandchildren

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HONORING THE 2021 MARITIME LEADER OF THE YEAR

JIM TEAGUE

CO-CEO, ENTERPRISE PRODUCTS

Reserve your table

(713) 678-4300 dinner-info@txgulf.org

Event Information

Date: Saturday, August 21, 2021

Time: 5:30 p.m.

Location: Bayou City Event Center

Houston, Texas Dress: Black-Tie Optional

About the Annual Maritime Dinner

The Annual Maritime Dinner is one of the largest maritime formal business events in the U.S. with over 750 attendees, bringing together maritime, transportation, and industry professionals and their guests to recognize the Maritime Leader of the Year.

Attendees are treated to an elegant night filled with complimentary perks, including free valet or self-parking, open bar during the cocktail reception, professional photography, and wine service during the gourmet dinner. The cocktail reception features a silent auction.

The Greater Houston Port Bureau is a 501(c)6 non-profit trade association. Dinner proceeds benefit in part the Port Bureau's regional maritime advocacy efforts.

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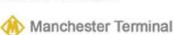


























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Port Bureau Updates

Vopak and Aegis Join Forces for LPG and Chemical Storage in India



Vopak and Aegis announced they will join forces in India with the aim to grow together in the LPG and chemicals storage and handling business. The transaction is expected to close early 2022, subject

to customary closing conditions.

The new partnership, Aegis Vopak Terminals Ltd, will operate a network of eight terminals that are located in five strategic ports along the east and west coast of India. With a total capacity of around 960 thousand cbm, the partnership will become one of the largest independent tank storage companies for LPG and chemicals in India. LPG is earmarked by the Indian government to provide cleaner and safe cooking fuels for households.

The partnership is positioned for further growth, targeting mainly LPG, chemicals, and industrial terminal opportunities. This investment is another step for Vopak towards its strategy to allocate capital to grow in gas markets.

"This joint venture with Vopak will accelerate the growth of Aegis in the terminals business and has the potential to allow Aegis to diversify into new areas of gas storage, such as LNG and other energy projects including renewables in partnership with the independent tank storage company. We expect the deal to be significantly earnings enhancing for Aegis shareholders due to the deployment into growth opportunities of the combined financial firepower of the two groups and management in the terminals business." said Raj Chandaria, chairman of Aegis Logistics Ltd.

"This is an investment in a growth market and by joining forces with Aegis we aim to deliver growth over the next ten years in line with the new joint ventures' and India's ambition for LPG." said Eelco Hoekstra, chairman of the executive board and CEO of Royal Vopak. "We are very excited for this new partnership. Aegis is a reputed local partner with a ready organization and proven track record of conceiving and executing tank farm assets in strategic locations along the Indian coastline."

This transaction entails two separate legal entities that Vopak will simultaneously buy into on the basis of joint control:

- The Aegis Vopak Terminals Ltd entity, in which Vopak will acquire a 49% shareholding. Vopak's existing CRL terminal entity in Kandla will become a wholly owned subsidiary of Aegis Vopak Terminals Ltd. Aegis' network of terminal assets at five different locations in Kandla, Pipavav, Mangalore, Kochi and Haldia covering the west and east coast of India will be added to the joint venture asset base.
- The Hindustan Aegis LPG Ltd entity, in which Vopak will acquire a 24% shareholding. This is currently a joint venture between Aegis and Itochu. After the transaction Aegis will own 51% and Itochu will continue to hold 25%.

Enterprise Acquires Ethylene Storage Business From NOVA Chemicals



Enterprise Products Partners L.P. (Enterprise) and NOVA

Chemicals Corporation ("NOVA Chemicals") announced that a subsidiary of Enterprise has acquired a wholly owned subsidiary of NOVA Chemicals, which operates an ethylene storage business and trading hub in Mont Belvieu, Texas. NOVA Chemicals, one of the largest merchant ethylene producers and marketers on the U.S. Gulf Coast, will be a long-term storage customer in the Enterprise system.

"The acquisition, which gives Enterprise ownership of the largest ethylene market hub in Texas since it was established in 2001, will complement Enterprise's own growing ethylene network in the region," said Chris D'Anna, senior vice president, petrochemicals of Enterprise's general partner. "The combined system offers multiple benefits for producers, consumers and traders, such as increased physical connectivity, greater market liquidity and pricing transparency, as well as improved access to Enterprise's ethylene midstream services, including our export terminal and growing Gulf Coast pipeline system."

"This transaction provides the best long-term solution for the Mont Belvieu ethylene storage business and trading hub, allowing NOVA to focus on our core business of ethylene and polyethylene production, including the safe and successful completion of our world-class Advanced SCLAIRTECH technology facility in Ontario that will deliver recycle ready resins for sustainable packaging solutions," stated John Thayer, senior vice president sales and marketing for NOVA Chemicals.

Enterprise Products Partners L.P. is one of the largest publicly traded partnerships and a leading North American provider of midstream energy services to producers and consumers of natural gas, NGLs, crude oil, refined products and petrochemicals. Theirservices include: natural gas gathering, treating, processing, transportation and storage; NGL transportation, fractionation, storage and export and import terminals; crude oil gathering, transportation, storage and export and import terminals; petrochemical and refined products transportation, storage, export and import terminals and related services; and a marine transportation business that operates primarily on the United States inland and Intracoastal Waterway systems. The partnership's assets include approximately 50,000 miles of pipelines; 260 million barrels of storage capacity for NGLs, crude oil, refined products and petrochemicals; and 14 Bcf of natural gas storage capacity.

Shell Starts Up Europe's Largest PEM Green Hydrogen Electrolyser



Europe's largest PEM hydrogen electrolyser, began operations at Shell's Energy and Chemicals Park Rheinland, producing green hydrogen. Photo courtesy of Shell

The project, backed by a European consortium, will accelerate hydrogen production and contribute to Europe's goal to achieve climate neutrality.

Europe's largest PEM hydrogen electrolyser*, began operations at Shell's Energy and Chemicals Park Rheinland, producing green hydrogen.

As part of the Refhyne European consortium and with European Commission funding through the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), the fully operational plant is the first to use this technology at such a large scale in a refinery.

Plans are under way to expand capacity of the electrolyser from 10 megawatts to 100 megawatts at the Rheinland site, near Cologne, where Shell also intends to produce sustainable aviation

fuel (SAF) using renewable power and biomass in the future. A plant for liquefied renewable natural gas (bio-LNG) is also in development.

"This project demonstrates a new kind of energy future and a model of lower-carbon energy production that can be replicated worldwide," Shell's downstream director, Huibert Vigeveno, said at the official opening ceremony.

"Shell wants to become a leading supplier of green hydrogen for industrial and transport customers in Germany," he added. "We will be involved in the whole process — from power generation, using offshore wind, to hydrogen production and distribution across sectors. We want to be the partner of choice for our customers as we help them decarbonize."

Shell has a target to become a net-zero-emissions energy business by 2050, in step with society. As part of its Powering Progress strategy, Shell plans to transform its refinery footprint to five core energy and chemicals parks. This means Shell will reduce the production of traditional fuels by 55% by 2030.

The Rheinland electrolyser will use renewable electricity to produce up to 1,300 tonnes of green hydrogen a year. This will initially be used to produce fuels with lower carbon intensity. The green hydrogen will also be used to help decarbonize other industries.



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Kinder Morgan to Purchase Renewable Natural Gas Developer Kinetrex Energy



Kinder Morgan, Inc. (KMI) has agreed to acquire Indianapolis-based

Kinetrex Energy from an affiliate of Parallel49 Equity. Kinetrex is the leading supplier of liquefied natural gas (LNG) in the Midwest and a rapidly growing player in producing and supplying renewable natural gas (RNG) under long-term contracts to transportation service providers.

Kinetrex has a 50% interest in the largest RNG facility in Indiana as well as signed commercial agreements to begin construction on three additional landfill-based RNG facilities. When in operation next year, total annual RNG production from the four sites is estimated to be over four billion cubic feet. RNG is derived from abundant renewable sources, including organic waste in landfills, wastewater treatment plants and agricultural operations. By capturing methane produced from the decomposition of organic waste, the RNG production process reduces or eliminates greenhouse gas emissions. Kinetrex's unique full-service platform provides outstanding value for its customers and host landfills. The transaction requires regulatory approval under Hart-Scott-Rodino and is expected to close in the third quarter of 2021.

"This is a great day in the young history of Kinder Morgan Energy Transition Ventures (ETV)," said ETV President Jesse Arenivas. "We have been focused on RNG due to its potential to grow rapidly in the near term and deliver attractive returns, with landfills providing a low cost, predictable and long-term feedstock. The team at Kinetrex has developed an outstanding business model and platform for future growth in a fragmented market, and we are excited to welcome them to Kinder Morgan."

"As we looked for the best partner to help grow our presence in renewable natural gas, Kinder Morgan's Energy Transition Ventures emerged as the clear choice," said Kinetrex President and Chief Executive Officer Aaron Johnson. "KMI's project management expertise, extensive pipeline network and broad customer relationships will undoubtedly help us realize the vision we had in founding Kinetrex eight years ago: to provide holistic solutions for customers seeking to meet emission reduction targets."

Key members of Kinetrex's management team will be joining KMI as part of the acquisition to pursue new projects that expand their successful RNG platform. After close, Johnson will continue with KMI as president of Renewable Natural Gas and will report to Arenivas. Since its inception in 2013, Kinetrex has been committed to developing solutions that lower the cost of business while maintaining a focus on environmental stewardship. This acquisition will stay true to that focus.

KMI expects the investment to be accretive to its shareholders as the three RNG facilities become operational over the next 18 months, with the purchase price and additional development capital expenditures representing less than six times expected 2023 EBITDA.

Callan Marine Performs Maintenance Dredging at Bolivar Ferry Terminal



The General Patton. Photo courtesy of Callan Marine

Callan Marine is serving as the prime contractor to the Texas Department of Transportation for the maintenance dredging project located at the Bolivar Ferry Terminal. The project consists of the removal of 369,000 cubic yards of material and returning the landings to the required depth of 22'. The project is anticipated to be complete in mid-July by Callan's fleet dredge the General Patton.

"Maintaining transportation routes is a priority for the Texas Department of Transportation," remarked Micah Morris, Callan Marine's Brown Water Divison Manager. "Callan Marine is proud to facilitate these projects with safety and integrity, completing projects quickly during peak summer travel months."

Bahri Ranks 40th on Forbes Middle East Top 100 List for 2021



Bahri, a global leader in logistics and transportation, has been featured in Forbes

Middle East's (Forebes ME) list of the top 100 companies for 2021. Bahri advanced 36 spots on the list to reach the 40th position this year.

Bahri's achievement recognizes its remarkable performance and exceptional resilience during a particularly challenging period for businesses worldwide. Despite operating amid uncertain market conditions, the company continued to lead innovation and excellence in the maritime logistics and transportation industry through several multi-pronged initiatives to improve its operational efficiency, technological competencies, service offerings, geographical presence, and fleet strength. As a result, Bahri attained a huge increase of 153 percent in its annual net profit in 2020, with the revenue increasing by 28 percent compared to the preceding year. By improving its ranking this year on the "Forbes ME's Top 100 Companies" in the Middle East' list – from 51 in 2020 and 76 in 2019 – Bahri has reiterated its commitment to delivering quality-driven services and attaining sustained revenue growth and customer satisfaction.

Abdullah Aldubaikhi, chief executive officer of Bahri, said: "Bahri's improved position on Forbes ME's top 100 list recognizes our sustained growth and efficiency at all levels as well as our growing market presence. We are proud to be one of the topmost logistics and transportation companies in the region to make it to the list, once again proving our industry-leading capabilities and underlining our commitment to excellence. I thank our team members for their invaluable contributions to our continued success."

Richardson Companies Founder Passes at Age 78



The Greater Houston Port Bureau member and past executive board member, Nolan Richardson, age 78, passed away on July 9, 2021, in Humble, Texas.

Nolan's company, Richardson Companies, was founded in 1969 as the Richardson Steel Yard and has been a Port Bureau member since 2009.

Nolan was born in Shattuck, Oklahoma, on February 2, 1943. After graduating high school, he went to California and attended San Francisco State. When Nolan became homesick, he went back to Oklahoma to help his father in his trucking company, and ultimately moved to Houston in 1969 to establish his own business. Not only has Nolan been honored as the "Seafarers' Center man of the year", but he also served on the board of the Greater Houston Partnership as well as on the Port Bureau's board. Nolan began serving on the Port Bureau's board in 2009 and served on the executive board of directors until 2020.

Nolan is survived by his wife Bobbie of 56 years, and his three sons, Kelly Ken, Chance Duane, and Michael Joseph.

Nolan's smiling face will be missed at the Port Bureau's Commerce Clubs and maritime dinners.

Roger Guenther Appointed to Gulf Coast Protection District Board



Texas Governor Greg Abbott has named Port Houston Executive Director Roger Guenther to the Gulf Coast Protection District (GCPD) Board of Directors. The Texas State Legislature created the Gulf Coast Protection District to "operate and leverage funding to build the unique flood control and surge protection needs for coastal communities."

According to a news release issued by the Texas Governor's Office, when completed, the Coastal Texas study will be the largest civil works project in U.S. history. It has been described to have the same impact as the Galveston Coast seawall. This system will be designed to protect the Texas coast and the national economy, and millions of Texans for generations to come. According to the release, Texas ports handle 65 percent of all U.S. cargo and produce the largest military jet and diesel fuel volume. The creation of this District provides the opportunity to leverage almost \$30 billion federal dollars to protect the ports of Beaumont, Harris County, and Galveston from storm surges. Port Houston is the largest port in Texas and on the Gulf Coast.

"Strengthening our coastal regions and ports is vital not only to Texas, but to the entire nation," said Governor Abbott. "This project will go down in history as one of the most significant measures to protect Coastal Texas, its citizens and the economic activities this region provides."

"I thank Gov. Abbott for appointing me to serve on the Gulf Coast Protection District," Guenther said. "The work we conduct as part of this district is about protecting lives and the Texas economy, and I am honored to serve."

Texas A&M Maritime Academy Sets Sail for Sea-Day Training



Photo courtesy of Texas A&M Maritime Academy

Over 300 Texas A&M Maritime Academy cadets, faculty and staff departed from the Galveston Campus aboard the *T/S Kennedy* to begin a 56-day training cruise to earn required at-sea hours to receive their U.S. Coast Guard license. This training is critical in educating the future generation of merchant mariners who support both our national security through service in the armed forces and the maritime industry, a key contributor to the economic prosperity of Texas.

"Over 90 percent of everything you eat, wear or use travels to you through our nation's ports and inland waterways," said Superintendent Col. Michael E. Fossum. "Our nation's workforce of skilled mariners is aging and retiring. Educating and training merchant mariners to continue to drive the blue economy here in the Gulf Coast region and around the globe is critical in meeting the needs of our citizens."

The ship serves as a living laboratory where cadets earn hands-on experience in ship navigation and marine engineering systems, maintenance, safety and security in addition to attending classes onboard.

The 56-day training cruise includes port stops in St. Thomas, U.S. Virgin Islands; Galveston, TX, Boston, MA, anchoring in New York, NY before dropping the ship at its home, the Massachusetts Maritime Academy in Buzzards Bay, MA.

"Cruise is the ultimate culmination and continuation of our studies on land. It's challenging, hard work; sometimes mistakes are made and lessons are learned. I've had long days, I have had tough days, but I've never had a bad day," explained Summer Sea Term Corps of Cadets Cruise Commander Cole Masington '21. "Aggies see the job through, and that goes for our instructors sailing with us, too. They don't just talk the talk on land, they walk the walk on the ship. We are all one crew."

Successful legislative efforts in Washington, D.C., secured the Texas A&M Maritime Academy the transfer of the *T/S Kennedy* to the Galveston Campus in 2023 and a new, state-of-the-art National Security Multi-Mission Vessel (NSMV) in 2025. These ships both have 12 times the capacity of the maritime academy's current training ship, the *T/S General Rudder*.

State maritime academy training ships are federally owned vessels operated by the six state maritime academies to serve cadet-training purposes. They are also valuable support vessels for disaster response efforts.

Coast Guard 8th District Change-of-Command



Photo by Petty Officer 2nd Class Travis Magee

Rear Adm. John P. Nadeau transfered command of the Coast Guard 8th District to Rear Adm. Richard V. Timme on Friday, June 25, at the Port of New Orleans.

As 8th District commander, Timme is responsible for all Coast Guard operations spanning 26 states, including the Gulf of

Mexico coastline from Florida to Mexico, the adjacent offshore waters and outer continental shelf, and the inland waterways of the Mississippi, Ohio, Missouri, Illinois and Tennessee River systems. Headquartered in New Orleans, the 8th District encompasses three major regions covering more than 11,000 miles of waterways and 179,000 square miles of the Gulf of Mexico. During an average year the more than 7,000 active duty, reserve, civilian and auxiliary personnel of the 8th District save more than 870 lives and assist more than 4,200 people.

Timme was previously assigned as the assistant commandant for prevention policy at Coast Guard headquarters in Washington, D.C., where he was responsible for the development of national policy, standards and programs promoting marine safety, security and environmental stewardship.

Nadeau originally took command of the 8th District in June 2019 and is retiring after 32 years of service following the change of command.

A change-of-command ceremony marks a transfer of total responsibility and authority from one individual to another. It is a time-honored tradition conducted before the assembled crew, as well as honored guests and dignitaries to formally demonstrate the continuity of the authority within a command.



July 2021 Port Bureau News

Texas Winter Deep Freeze Broke Refining, Petrochemical Supply Chains

It may take the Texas petrochemical industry until year-end 2021 to fully recover from the record cold that triggered power outages and supply disruptions in mid-February. Production of basic petrochemical products used in a range of intermediate and consumer goods was interrupted, breaking supply chains already strained by COVID-19 and leading to price pressures and scores of product shortages.

The record-breaking Arctic cold that flowed deep into Texas in mid-February hit the Texas refining and petrochemical sectors as hard as any hurricane and with less warning. Operations did not fully return until early April and sustained lasting damage.

The weather disruption tightened motor fuel supplies, created shortfalls of petrochemicals and slowed Texas exports. The impacts to supply chains have contributed to rising producer price inflation, and the challenges of restocking those supply chains are expected to persist through much of 2021.

Power Producer Struggles

The deep and persistent cold drove up heating demand across a broad swath of the nation. Texas power producers struggled to meet surging demand. Failure to winterize electricity generation infrastructure contributed to power shutdowns. Fearing a collapse of the power grid infrastructure, the agency overseeing it, the Electric Reliability Council of Texas, initiated rolling blackouts affecting most Texas residents and businesses.

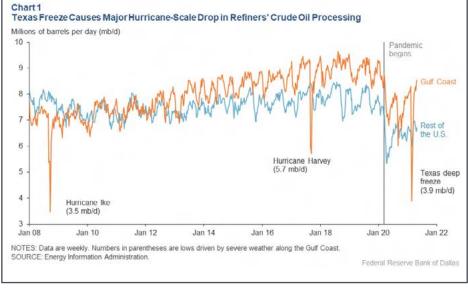
Among those affected by the double-barreled challenge of cold and loss of electric power were many energy producers and pipeline operators that feed natural gas to electricity generators and industry. The unusual cold even led to instances where the water co-produced with oil and gas in wells froze, reducing the flow of gas available to power generators. Texas natural gas production ultimately fell by 45 percent.

The petrochemical and refining sectors of Texas rely on natural gas and co-produced natural gas liquids—mainly ethane and propane—not only for heat needed during manufacturing, but also for raw materials used in many of their products and processes. The combined effect of electricity blackouts, declines in the supply of raw materials and the intense cold itself forced a rapid shutdown of refinery and chemical plant facilities that required weeks to unwind.

Hurricane-Scale Outages

The Energy Information Administration's report on the Gulf Coast region covers Texas, Louisiana and New Mexico. The region is home to more than half of U.S. operable refining capacity—Texas alone accounts for nearly one-third.

The volume of crude oil processed by these Gulf Coast refiners in February fell to a low of 3.9 million barrels per day (mb/d) on a weekly basis, down from an average of 7.8 mb/d the month before. The roughly 50 percent drop was comparable in magnitude to the weekly impacts of hurricanes Ike (2008) and Harvey (2017). Crude processing recovered to 8.0 mb/d by the end of March 2021 (Chart 1)



Limited mobility during the freeze and a dip in exports helped reduce the immediate effects of the lost supply on U.S. markets. However, the subsequent drop in refiner output amid increasing U.S. consumption following a pandemic lull reduced domestic gasoline and diesel "days of supply"—inventories divided by consumption—to comparatively low five-year average levels. Gasoline fell to 27 days of supply at the end of March, while diesel was at 36 days.

Chemical Output Hit Harder

Refineries typically need as little as 24 hours' notice to safely shut down—usually in preparation for an oncoming hurricane in the Gulf of Mexico, whose development may have been tracked for over a week. Many chemical facilities need three to five days to stop

operations due to the complex interconnections, continuous processes, high temperatures, pressures and the materials involved.

Chemical plants produce a variety of substances from the ingredients for chlorine-based disinfectants and plastic bottles to fertilizers, pesticides and packaging.

Texas is home to roughly three-quarters of basic U.S. chemical production capacity. The largely intermediate goods produced enter supply chains around the country and the world. Most of these goods go through multiple intermediate stages of processing before becoming a final consumer product.

The capital-intensive chemicals manufacturing industry (excluding pharmaceuticals) directly

employed 67,100 Texans at the start of 2021, but job multipliers for the industry indicate as many as 4.6 times that number are indirectly supported downstream in supply chains, construction and maintenance, logistics, engineering and other sectors, according to the American Chemistry Council.

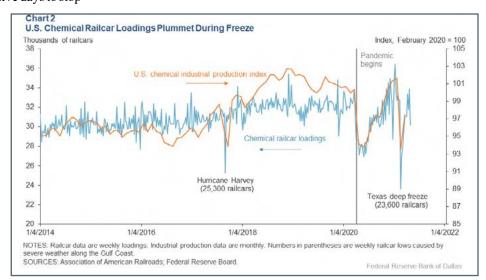
The unexpected and long-duration cold, sudden power loss and disruption of natural gas liquids supplies precluded a normal, orderly shutdown. This caused more damage that took longer to identify and repair. For example, in some cases, firms could only identify damaged seals in one part of a plant after completing and testing repairs to other components. Even facilities outside of Texas—or ones not directly affected by the freeze and blackouts—had to cut output in February and March, declaring force majeure in many cases due to shortages of important intermediate petrochemical inputs.

Some producers of polycarbonate resin could not meet production orders. Polycarbonate resin is used to make products such as car bumpers, headlight lenses and the transparent dividers installed over the past year by many businesses to protect customers and employees from exposure to COVID-19.

The auto industry was particularly affected. Toyota and Honda, already confronting COVID-19-related semiconductor shortages and port congestion, faced significant operational challenges. Firms either halted or slowed production at facilities in Mexico, the U.S. and Canada because of a lack of petrochemical components. Honda suspended North American operations for a week in March. Among key shortfalls were polyvinyl chloride (PVC) used for dashboards and other vehicle parts.

As much as 80 percent of U.S. basic organic chemicals capacity was offline after the storm, and up to 60 percent was still offline in mid-March, according to estimates from Wood Mackenzie, an energy industry consultancy. Capacity was largely restored by April.

Industrial production of chemicals had surpassed prepandemic levels by the end of 2020 (Chart 2). The index fell 8 percent in February, the largest one-month decline since January 1972. Chemicals is the single-largest industry group in the U.S. industrial production index, with a weight of 13.7 percent.

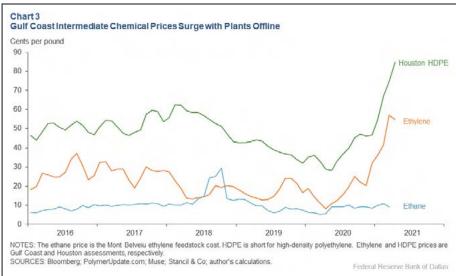


The average number of chemical railcar loadings—a timelier barometer of chemical plant operations—fell 28 percent during the week ended Feb. 20. That, too, marked the steepest one-week drop since 1988, when the weekly series from the American Association of Railroads began. By mid-April, U.S. chemical railcar loadings had returned to prefreeze—and prepandemic—levels, reflecting the resumption of near-normal operations.

The real (inflation-adjusted) value of Texas chemical, plastic and rubber product exports—which made up nearly 17 percent of Texas exports in the three months before the freeze—fell by more than one-fifth in February 2021, the largest one-month drop since the global commodities bust of 2008. The value of refined product exports (petroleum and coal products) declined over 5 percent.

Petrochemical Price Surge

Gulf Coast chemical prices exceeded prepandemic levels at the end of 2020 due to rebounding product demand and rising crude oil prices (Chart 3). Moreover, producers, wary of a growing second wave of coronavirus globally, had slowly rebuilt inventories of intermediate product that were depleted following hurricanes



Laura (August 2020) and Beta (September 2020). This kept industry inventories seasonally tight at the start of 2021.

The price of ethane—a key raw material for petrochemicals—has been relatively stable since summer 2020.

Intermediate product prices, however, have skyrocketed. The Gulf Coast price of ethylene surged 78 percent from December 2020 to March 2021. The increase pushed high-density polyethylene prices up to 75 cents per pound in March, a 61 percent jump. Ethylene feeds into myriad consumer products such as Styrofoam cups, plastic bottles, packaging and auto parts.

Rising Producer Prices

The increased chemical prices and related disruptions to supply chains added upward pressure to U.S. producer price indexes (PPIs).

The basic organic chemicals index (which tracks the prices of processed intermediate goods and includes ethylene) rose 10.4 percent from February to March 2021 (Chart 4).



Plastics and resins (which include polyethylene) increased 9.1 percent in March. Both were the fastest monthly rates of increase on record for these series, which began in 2011. The broader chemicals and allied products PPI logged its highest monthly growth since August 1974.

Lingering Effects in 2021

Even with chemical production back to prepandemic levels, supply chains aren't yet fully restored.

Consumer demand during the pandemic proved resilient as households ordered more to-go boxes from restaurants, demanded more personal protective equipment and required more packaging for online shopping orders. This helped offset lower demand for products such as motor oil additives and tire rubber, where consumption fell as people stayed home.

With little spare production capacity across the chemical sector, most new production will go to meeting new orders—likely

keeping inventories thin throughout supply chains. The lack of wiggle room should support recent high prices or even lead to still-higher prices should demand increase further.

The pandemic has produced lingering logistical challenges in shipping. International shipping costs have skyrocketed in spot and contract markets, particularly for trans-Pacific crossings. This is in part because the number of vessels in service has not fully recovered from 2020 lows, when lockdowns initially curtailed demand.

Shipping containers were left misallocated as the logistics of pandemic lockdowns limited the backhaul of empty containers used for moving bags of resins and other substances. Recurring coronavirus lockdowns affecting ports and businesses around the world may continue constraining shipping and container capacity, further challenging the restocking of chemical supply chains and broadly contributing to higher import costs.

Reaching Market Balance

Refiners and petrochemical producers' optimism grew as the economy strengthened in second quarter 2021 and COVID-19 vaccines became more plentiful. Industry officials say they remain wary about additional lockdowns arising from recurring illness in large demand centers such as India.

Forecasts for global crude and natural gas liquids consumption from the International Energy Agency were revised upward, and chemical industry contributions to the U.S. Purchasing Managers Index grew strongly as outlooks improved.

Restocking inventories and fortifying supply chains will be challenging, although petrochemical industry executives believe that full normalization could occur by year-end 2021. More production from new capacity coming online—\$5.7 billion worth in Texas, according to the American Chemistry Council—could help some product markets if it is brought into operation early enough in 2021. However, higher-than-normal production

rates through the fall and improved global shipping and logistics environments will likely be needed.

The 2021 hurricane season in the Gulf of Mexico provides another variable. The ability to gain control over COVID-19 is also an unknown. Whatever occurs, the near-term impact of the Texas deep freeze on the chemical industry is expected to reverberate through supply chains across industries for the rest of the year. When these transitory factors fade, upward industry price pressures are expected to dissipate.

Jesse Thompson

Thompson is a senior business economist in the Research Department at the Federal Reserve Bank of Dallas.





Photos courtesy of Callan Marine LTD

June 2021 Commerce Club Featuring Maxie McGuire, President, Callan Marine, LTD.

Control Your Destiny



Maxie McGuire President Callan Marine, LTD

"We really appreciate the opportunity, as a dredging contractor, to speak. We're always advocating how we can work better together," said Maxie McGuire, president of Callan Marine, LTD., in his opening comments at the Port Bureau's Commerce Club luncheon on June 10. Speaking to attendees from the theme of "Control Your Destiny" in terms of dredging needs, McGuire named funding and early engagement as key factors for "keeping your berths full".

Channel or dock dredging today can be a more extensive process than in the past because dredge materials are usually removed to an area that is quite distant from the dredging site. Consequently, equipment and technology have evolved to keep pace with the modern dredge process. Most dredgers are either mechanical or hydraulic. Mechanical dredgers are suited to removing hardpacked materials and working in tight areas. They utilize a "clamshell" (bucket) or backhoe for operations. Hydraulic dredges are suited to open water, moving materials through pipeline or a "hopper" that transports loads over a long distance.

Callan Marine operates four dredges, with a fifth under construction and sixth to be announced soon.

Funding

"As contractors, we love to have the certainty of funding," explained McGuire. "It gives us the ability to see the work coming, predict, and build."

McGuire said the federal government will have an approximately \$6.8 billion budget, with \$2.5 billion allocated to operation and maintenance. Historically, this represents an increase of one billion. "We're seeing record money coming at us to deal with our infrastructure and grow."

He also noted the potential impact of Project 11 for dredging contractors. He estimates 18 to 20 million cubic yards of material will be removed in stages through several projects in the overall process. "It will be busy and bring jobs," McGuire said. "At Callan, we're super excited to have something in our backyard as big as Project 11."

Early Engagement

To get projects to the finish line efficiently, McGuire advocates getting engaged with a contractor early. Working together this way helps companies manage their value. "Everyone who moves product over water understands the value of under keel clearance. If you get draft restricted, that hits your top line and hits your bottom line," said McGuire.





Callan Marine offers comprehensive dredging solutions for any project. The company performs dredging projects for both private and public clients by providing services to restore berthing depths for ship docks, navigation channels, or otherwise facilitate transportation on the waterways.

A lively Q&A session followed McGuire's presentation. Topics included questions about the average number of cubic yards/day removed, current status of dredge disposal sites, inflation impacts, national dredging fleet capacity, and permitting.

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