



Don't Mess with the Texas Coast

What's a 500-year storm? How do we prepare for one? What will be the hardest-hit area? Where will flooding be the worst? What about the storm surge? All of these questions and more are why the Center for Texas Beaches and Shores was created.

Established in 1993, the CTBS at Texas A&M University at Galveston researches coastal sustainability and resiliency by addressing beach erosion and wetlands loss throughout the state. One of the most productive and ecologically distinctive shorelines in the world, the Texas Coast spans 18 counties. The CTBS aims to gain a deeper understanding of how both natural and man-made forces are reshaping this region and to educate the public about these impacts.

Dedicated to developing a

comprehensive, holistic approach to Texas coastal research and restoration, while incorporating natural, economic and political processes, the CTBS cooperates with government and private sector agencies to protect Texas' shoreline, bays and waterways. In the wake of 2017's Hurricane Harvey, CTBS increased its focus on coastal resiliency and flood mitigation, taking proactive steps to ensure residents are prepared for future hurricanes.

Through the Governor's Commission to Rebuild Texas (CRT), CTBS's efforts are helping residents rebuild after Hurricane Harvey by providing perspective on coastal sustainability and resiliency, educating the public on the economic impact of flooding, and working for future environmental protection and flooding mitigation. CTBS primarily authored the CRT's Harvey flood report for state legislators and collaborated with the University of Maryland to release and present a national study on urban flooding to members of Congress.

CTBS director and marine sciences professor Dr. Sam Brody and the George P. Mitchell '40 Chair in Marine Sciences Dr. Bill Merrell, have also created programs such as Buyers Be-Where, an online system to help prospective home buyers and sellers understand their risk for flooding relative to other properties in the area.

At TAMUG, we are serious about coastal resiliency in all aspects.



Dr. Sam Brody presents on flooding and mitigation at a Texas A&M Legacy Society event in 2018.

Unfortunately, people have to realize that this is a 'when' thing, not an 'if.' We saw that with Ike and Harvey, and if we don't do more to prepare, the consequences will be dire for everyone in this region. - Dr. Sam Brody

Endow the CTBS: **\$5 million goal**

A gift to endow the Center for Texas Beaches and Shores will support faculty and student researchers in their initiatives to protect the Texas Coast. In addition, CTBS research will continue to provide critical support to federal and state agencies for the design and construction of the proposed Ike Dike and other vital coastal related projects in a more timely and effective manner. By giving to the CTBS, you will help protect our nation's residents, marine research and economic well-being for years to come.

To learn more, contact Assistant Vice President for Development Rick Kline at rkline@txamfoundation.com or visit the link below.

https://give.am/CTBSEndowment



Q&A with Dr. Stephen Curley

Shakespeare, sea chanteys and science fiction are not only a few of Dr. Stephen Curley's favorite things, they also happen to be the central subject matter of his curriculum for the past four-plus decades during his tenure as English professor extraordinaire at Texas A&M University at Galveston. The Regents Professor retired at the end of May after nearly 47 years of teaching at TAMUG where he is credited for establishing the maritime studies major, writing the definitive history of TAMUG, "Aggies by the Sea: Texas A&M University at Galveston," and so much more during his tenure at TAMUG.

We sat down with him shortly before he left to see what final words of wisdom he wished to impart.

What has been your favorite class to teach?

Honestly, it's whatever one I was in front of at the time. I teach Shakespeare, literature of the sea, intro to film analysis, science fiction, so all of those things, they're entries into a way of feeling and thinking that at the time I'm teaching, it's like a magical world, I love it. I could say my favorite class was first, last, and every single one in between and that would all be true. Truly my favorite thing is teaching - it doesn't matter the class or what we were even discussing. I think I've learned as much from my students as they have from me.

What was the most fun thing you ever got to do in a class?

Play guitar! I've got no great voice - I'm a strummer and a hummer - but I've had fun with it over the years. Dr. Jim McCloy, who taught marine geography, was the one who convinced to bring in my guitar to his class, get up in front and sing to his students. The students were, at first I think a bit horrified and/ or were listening in polite silence, but after I played for a few minutes, they were entranced. I got applause for that. So then, I took it to my literature classes and others and played sea chanteys for my students. There's such a difference in recorded music and live music. And, you know, they learned it better! Since then, I've used my guitar for many things to help better connect with students and with myself.

What do you hope to see at TAMUG in the future?

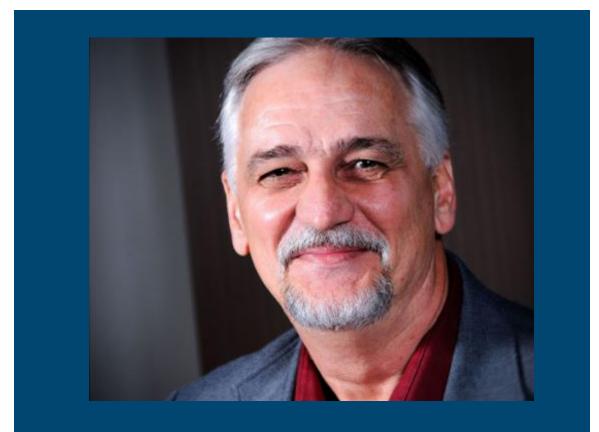
I hope the school continues to develop in the has been over the last few decades, becoming more nurturing, smarter and inspiring people in every field related to the sea. I also hope the bridge goes around the campus. Bridges are made to connect, not to separate.

What's the best lesson you've ever learned or the best thing you've ever been taught?

The best thing I've ever been taught is how to read, and that's essentially how to learn. I would say how to teach, but I don't really "teach;" students really learn.

What impression do you hope you'll be leaving?

Sometimes I think of John Keats and when he died he said, "I'm one whose name is written on water." Impressions of people come and go but I'd like to think that what I helped develop and build will continue and that's enough legacy for me. I don't need to have credit for anything. What I'm proudest of having done I think of all the things I've left to posterity, one is the creation of the maritime studies program. Not just today's students, but tomorrow's students will continue to major in it and do good things. And the program continues to evolve in ways that I couldn't dream of when it was first started. The second part is having the privilege to write the history of our first training ship and the campus. There's a story now, out there, that might've been forgotten. I'm really happy to have had that privilege.



Former Student <mark>Spotlight</mark>: J.R. Hand '81 Full Steam Ahead



By: Andréa Bolt

When asked about his experience living aboard the USTS Texas Clipper as a marine engineering student in the late 70s and early 80s, J.R. Hand smiles. Playing coy, he says, "I don't want to incriminate myself or anyone else. All I'll say is that we had fun - a lot of fun."

Hand moved around often in his adolescence, but spent a significant amount of time in Florida, where he graduated high school. While there, he developed an affinity for engines and beaches and once his family moved to Dallas following his graduation, he knew Texas A&M University at Galveston was his ticket.

"My college experience was definitely unique because the Clipper was our dormitory. Plus, classes were pretty small back then so everyone knew each other. It was a really great experience and very hands-on," Hand described.

After graduating in 1981, Hand struggled to find work. Thankfully, his time aboard the

Clipper paid off and he was able to find not only a job but a rewarding career.

"When I graduated, U.S. shipping was in the dump," he explains. "After a while at the union hall, my card only went up one notch, so I started looking around and they had a TAMUG department heads and help impress upon faculty what crucial skills their students will need in the real world within certain industries and even for different vessel types.

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centrifuge on the Clipper and I used to work on it. A few days later, an ad came in the paper for centrifuges. I took that experience and applied it to my first job; I did that for 20 years."

Hand moved from centrifuge-centric work with Alfa Laval Inc. to commissioning gas turbine power plants and fuel wash systems to working in marine lubrication with ExxonMobil. That work experience took him all over the world. Between the two companies, Hand says he's traveled to at least 30 countries. Now, Hand is ExxonMobil's marine chief engineer and one of the most important aspects of his position is... spreadsheets?

"Seriously, they're essential. You absolutely have to know how to use Excel, especially here at Exxon, we're using spreadsheets for everything," he emphasizes.

In his own work regarding studying used oil analysis, Hand studies a ship's oil analysis history in totality. He's able to then forecast if there's going to be a problem with an engine or other crucial ship part and broadcast said information before an incident occurs. He does all this via spreadsheet and information analysis, some of those sheets containing around 3,000 data points.

In the past few years, Hand has become a member of the cohort of former students at ExxonMobil who have given back to TAMUG via informational visits and presentations. Hand has had the opportunity to meet with students what to expect once they graduate in a purely real-world sense. On the engineering side, I want to help department heads 'train the trainer.' I want to give back what I've learned and what I'm teaching customers. That real world knowledge for these students is crucial."

Hand also enjoys these opportunities so that he can visit campus and see the considerable growth and progress taking place. He's especially impressed by the ship simulator, and says he has brought new ExxonMobil hires to campus to see the engine room and to experience the simulator.

"It's still not quite the same as the Clipper, though. Nothing will be," he says with a smile.

Company Matching

ExxonMobil currently offers a 3:1 company match, that is, for every dollar an employee gifts, the company provides a three times match (with certain restrictions).

Many other companies and organizations offer corporate gift matching. Check with your employer to learn how to maximize your contribution.

Donor Spotlight: Captain Augusta D. Roth '96



ENDOWMENT FUELS TRAINING CRUISES

From *Spirit* Magazine Originally published May 2019

Capt. Augusta "Gussie" Roth '96, department head of maritime transportation at Texas A&M Galveston, recently endowed a program fund to help offset training vessel fuel costs for cadets who spend time training at sea.

Roth, a 1996 graduate of the Texas A&M Maritime Academy, knows firsthand that maritime cadets are required to spend many months at sea to enrich their learning with hands-on experience in seamanship, engineering and navigation. The fuel costs factored into each student's sea time expenses are costly. By offsetting these expenses, Roth is easing the financial burden for all cadets aboard the training ship during their required time at sea. leaders in the global workforce, and they all deserve to see the world," Roth said. "These training cruises build marketable professional and social skills that are unparalleled. Everyone that has participated will tell you that they are unique, life-changing experiences."

As one of only six such institutions in the nation, the Texas A&M Maritime Academy trains officers in both marine transportation and marine engineering to serve on oceangoing and inland waterway vessels. "I hope my fuel endowment will grow over the years to keep cruise costs low," Roth said. "I want to show maritime academy students that Texas A&M and its former students care about their quality of education."

"Maritime academy students will become

To contribute to the Sea-Term Fuel Endowment, visit: give.am/TAMUSeaTermFuelEnd

Maroon Delegates



Our Maroon Delegates have worked tirelessly alongside our TAMUG Development team to help create a fund in order to leave a legacy that will last for generations of students to come via TAMUG's very own Aggie Rings Statue. While the official design is still being determined, students both current and future are thrilled at the idea of beautifying our campus and adding more Aggie-centric art and meaningful monuments to Aggieland by the sea.

To contribute:

Please make a check payable to Texas A&M University at Galveston, include "Aggie Rings Statue" on the memo line and mail to:



Texas A&M University at Galveston Attn: Development - Alice Maffay P. O. Box 1675 Galveston, TX 77553-1675

To donate by credit card, please call 409-740-4446 or email maffaya@tamug.edu.

Ashes to Ashes, Dust to **Blue Holes**

By Andréa Bolt

Dr. Pete van Hengstum is one of the few travelers who frequently visits the Bahamas for work and not pleasure. As an assistant professor of marine geology in the department of marine sciences, he specializes in sedimentology and micropalentology, which are tools to look back in time.

His interests have always aligned with Earth sciences and the many unsolved mysteries of our planet. He is especially fascinated by how tropical coastal regions have changed in response to rainfall, hurricane activity and sea-level rise through time. As a sedimentologist, van Hengstum sees the seemingly mundane mud, dirt, and dust deposited in the ocean as pages of history, enabling one to read a new book about global planetary change, depending on what area of the world one may be in.

To collect the samples required for his research, he visits sinkholes, blue holes and underwater caves throughout the Bahamas. Using techniques that are scaled-down from the oil industry, sediment cores are collected by inserting and retrieving pipes that have are vertically inserted into the mud. With the support of the National Geographic Society and National Sciences Foundation in December 2018, van Hengstum and his research team visited Abaco Island where they sampled a new blue hole and have made a particularly exciting discovery. cores from a terrestrial sinkhole that preserves a terrestrial record of environmental change, climate, and history spanning at least 50,000 years," van Hengstum enthusiastically explains. "What's really exciting is the cores appear to contain evidence of major, abrupt climate changes that are commonly observed at higher latitudes in the North Atlantic Ocean.

This includes abrupt warm and cold spells, or rainy and dry periods in the tropics, since the last major ice age. Observing how these events impacted climate down in the Bahamas is very interesting."

According to van Hengstum, there are very few terrestrial records of climate change from the entire Caribbean region that go back 50,000 years, so what his team learned from this project is significant and relevant to other scientists working throughout the North Atlantic Ocean region.

Although clearly passionate about his research portfolio at TAMUG, as a trained technical cave diver he provides considerable service to the university as chair of the Diving Control Board, and he invests considerable time in teaching undergraduate classes.

"A lot of what attracts students to this campus is life and the processes that operate in the ocean today", says van Hengstum, "So while blue holes are exciting, a new TAMUG student may perceive a freshman geology class as irrelevant."

"We collected 20-meter long sediment

However, when students learn about the discipline of Earth science, and exploring planetary change in the time dimension, all sorts of new possibilities emerge.

"Students start by learning basic facts, definitions and processes in order to even discuss this discipline," he explains. "But, then as we explore how the ocean and its life have changed through time, a more interesting question develops: *Why* has it changed? It's rewarding to teach students about long-term oceanic changes, and the potential career paths this can provide, such as in petroleum geology, ocean and coastal hazards, or environmental consulting."

Even if students do not pursue Earth sciences as a career, van Hengstum seeks to further develop students' critical thinking, lifelong learning, and communication skills. "Faculty cannot be there when students move on in their scientific journey, and these are tremendously valuable life skills. For example, developing effecting lifelong-learners is key - how to perpetually teach yourself to take control of your

self-sustainability and continuous employability."

In his office, van Hengstum pulls up a photo depicting what to the unknowing eye looks like brown, white and sepiacolored lines. But what the sedimentary striations show is actually African dust in a core sediment sample taken from Abaco. The photo is not enhanced or magnified; the colors are instead so highly contrasting that they are easily visible to the naked eye. He describes how these remarkable layers will allow him to investigate when Africa was exporting more or less dust to the North Atlantic, which will answering some very timely and interesting questions about our Earth's climate before humans arrived in the northern Caribbean region.

Though van Hengstum has been with TAMUG five years, he will be promoted to associate professor of marine sciences later this year. We are sure his time here, in all respects, is just beginning.



(Fourth from left) van Hengstum poses with the Drinkwater drill core team on a site.

EVENTS



1. TAMUG faculty and staff visited ExxonMobil's Spring, TX campus in January.

2. As part of TAMUG Speaker Series, three ExxonMobil scientists; Jennifer Dupont, David Palandro and Adam Cantu '90, presented to students, discussing their work and the intersection of marine science with the energy industry.

3. TAMUG's fourth annual Mardi Gras party was fun for all!

4. TAMUG's first Roadshow event was hosted in League City, TX in late March. Board of Visitors Member Chris Johnson graciously offered up his law office for the great get-together. Former students were invited to learn about the latest on campus from Col. Mike Fossum '80, Maroon Delegates, the Sea Aggie Former Student Network and Director of Development Jason Tieman.

5. Maritime Business Administration student and GPMS scholar Jesus Castro, Jr. '20 was presented his Aggie Ring by his father Jesus Castro, Sr. during April's Aggie Ring Day.



1. TAMUG was proud to host Texas A&M Foundation executive leadership for an extensive tour in April. 2., 3. The Sea Aggie Former Student Network held its first annual SAFSN Golf Tournament at the Magnolia Creek Golf Course April 5 and it was a huge success, with over \$14,000 raised toward TAMUG student scholarships.

4. TAMUG held its second Roadshow event in Dripping Springs, TX on April 11. Former Student Todd Sanders (pictured, TAMUG '98) and Col. Phil Waldron (TAMU '86) graciously opened the doors to their distillery, One Shot Distillery & Brewery and generously provided food and drink. [Cover photo: Phil & Todd in the distillery.]

5. Outgoing Maroon Delegate President and Ocean & Coastal Resources student Andres Barboza '19 hugs Col. Fossum '80 as he receives his diploma during May's commencement ceremony.

6. TAMUG staff and students represent at the 50th annual Offshore Technology Conference in Houston in May.

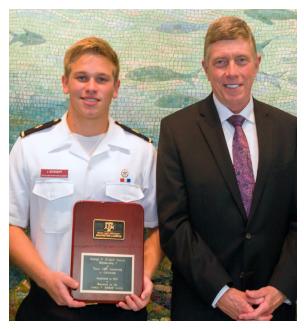




The mission of the Sea Aggie Former Student Network is to strengthen the unity of our Texas A&M University at Galveston graduates and students by promoting the involvement in industry professional events, networking and career enhancement opportunities. The network will serve as a conduit of industry perception and provide conscientious assistance to the maritime & marine student. We will always endeavor to nurture, support and integrate a versatile mix of professionals into the oceans of tomorrow.

To join, update your membership, learn about fun events and more, visit:

https://seaaggies.aggienetwork.com/



The GPMS is comprised of individuals and organizations committed to the well-being of our oceans by supporting marine and maritime research, education, training and more at the Gulf Coast's maritime university, Texas A&M University at Galveston.

Established in honor of George Phydias Mitchell, Fighting Aggie class of 1940; the spirit of the GPMS is to enhance the growth of the Galveston campus of Texas A&M University.

Funds are to be designated for student scholarships, maritime research, excellent faculty and student recruitment, campus beautification and for discretionary purposes as designated by the COO. For more information or to join, please visit: tamug.edu/ develop/Campaigns/MitchellSociety.html. Membership to the society is an annual donation spanning the current calendar year. Membership levels are described below:

- General Membership: \$1,000 minimum (Membership consists of GPMS specific gift or gift(s) of \$1,000 or more to TAMUG.)
- Faculty/Staff Membership: \$500*
- Student Membership: \$50*
- Corporate Membership: \$5,000 minimum* (The donor may name three individuals to GPMS membership, but only the corporate name will be published in membership rolls.)

Due to the generosity of our George P. Mitchell Society members, the first of our four GPMS scholars graduated in May.

Galveston Island native Justin Bossert '19 received his diploma in Marine Transportation, License Option.

In lieu of adding a fifth scholarship, members voted to double the contribution of each scholarship award to further benefit these deserving students. This added financial assistance will go into effect fall 2019.

*All funds at these levels must be directly dedicated toward GPMS membership.



JOIN TODAY!



George P. Mitchell SOCIETY

Texas A&M University at Galveston Development Office P.O. Box 1675 Galveston, TX 77553

A message from your TAMUG Development Office:

Greetings! Summer is upon us and before we know it, August 26 will be here -- along with a campus full of brand-new freshman, transferring and returning students. This TAMUG Development Newsletter for Summer 2019 will hopefully give you a brief overview of highlights in the form of stories and photos of what's going on at Texas A&M University at Galveston. As always, pictures and stories are great...but if you haven't been back in a while, there is nothing better than an in-person visit to meet our students, faculty and staff and explore our buildings. Call our office to schedule a visit.

In this issue of the newsletter, you'll get to learn more about one of our current superstar faculty members, hear about a new gift fund recently started by one of our department heads, and catch up with a former student who's doing great things at ExxonMobil Corporation. You can also read about activities and events happening on or around campus.

We recently initiated a Center for Texas Beaches

In closing, I'd be remiss if I didn't take a moment to once again thank all of our generous supporters. We have many former students, corporate representatives, parents and friends who support TAMUG via guest lecturing, offering industry advice, providing internships and employment for our students, serving on our Board of Visitors and providing financial support to help aid our students, faculty and programs. Thank you again for your ongoing support and generosity.

HAPPY SUMMER and enjoy our latest TAMUG Development Newsletter.

Regards,

Rick Kline Assistant Vice President for Development Texas A&M Foundation

For newsletter inquiries, please contact Andréa Bolt, development communications coordinator, at: a_bolt@tamug.edu.

and Shores Endowment Fund. A gift to this fund will support faculty and student researchers in their initiatives to protect our coastlines. With the addition of many new buildings over the last several years, we continue to have many new naming opportunities. These naming opportunities allow former students, corporations, families, classes and friends to leave their own legacy or memorialize a loved one by funding an available space at TAMUG.





From L - R: Director of Development Jason Tieman, Business Administrator Alice Maffay, Assistant Vice President for Development Rick Kline and Development Communications Coordinator Andréa Bolt