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Winter 2016
Volume 8/Issue 1

From the Commander



People are any organization's most important resource, so I am very excited that our winter edition highlights some of the outstanding professionals that work for the Charleston District and the important services that they provide.

We filled two key positions this winter, so please take the time to read about our new regulatory chief, Travis Hughes, and our new Post 45 project manager, Holly Carpenter (page 22). Both of these employees are absolutely the right people to help move the District forward in the coming years.

Speaking of Post 45, this winter we hit two more milestones. The Record of Decision was signed and sent to Congress for authorization and appropriation. We signed the design agreement with the SCSPA for the Preconstruction Engineering and Design Phase (PED) as well. The team is currently conducting remaining analyses as we move through this phase for the next 18-24 months (page 4).

The District actively participates in STEM events all year long as a way of giving back and investing in the future, but these outreach opportunities have a special place in our hearts when they are held during National Engineer Week. Brad Ryczko shared his passion for engineering with students from a local school with encouragement and a helping hand in solving a problem the students encountered with a robot they were building for a local competition (page 16).

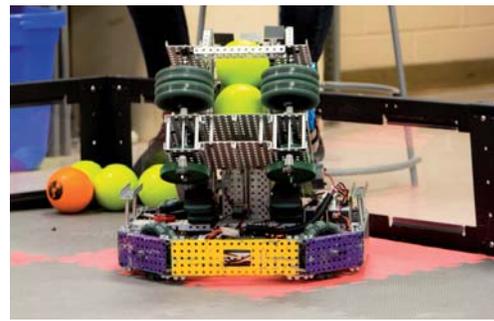
I am very proud of the unique capabilities the District brings to our customers. One of these is our fire protection expertise that we use to safeguard our customers' facilities (page 14). In addition, we had one of our contracting folks complete a construction management class which brings a very impactful perspective to his job awarding contracts for you (page 10).

Our annual military construction customer survey wrapped up recently (page 9) and our civil works survey is being conducted now. I appreciate our customers taking the time to complete these questionnaires because it gives me valuable feedback for how we can better serve you.

You can see just from this short list how impactful the District's employees are to our community, our state and our nation. After being in command for close to nine months now, I see firsthand why this small district has such an outstanding reputation for being one of the best in USACE. It's the people who work here and the outstanding service they provide to you each and every day that makes us who we are. I hope you enjoy reading all of their stories.

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News Magazine of the U.S. Army Corps of Engineers,
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Circulation: 1,100

Cover photo by Sara Corbett - An upclose look at the dredge on Jeremy Creek, along the AIWW.

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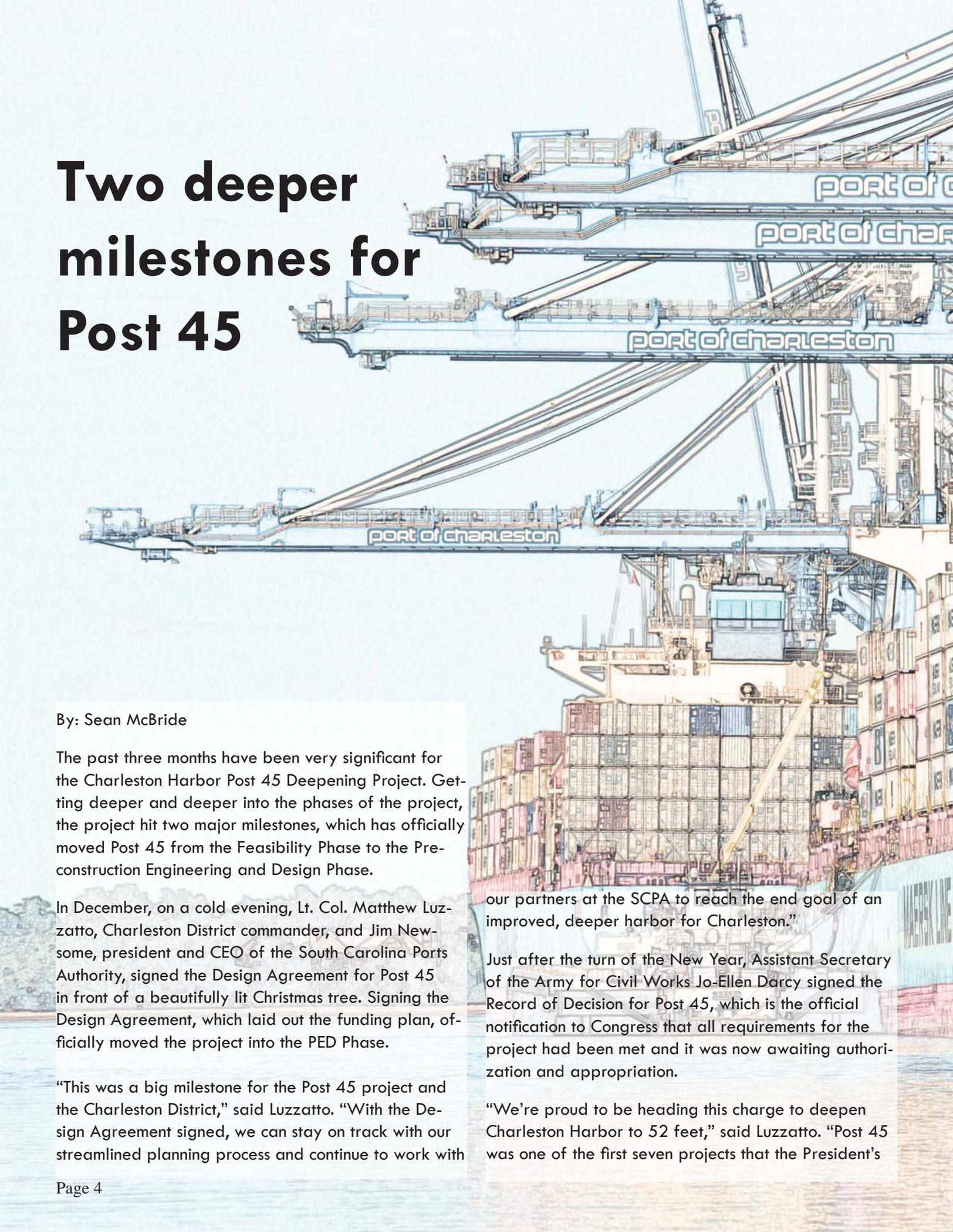


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Two deeper milestones for Post 45



By: Sean McBride

The past three months have been very significant for the Charleston Harbor Post 45 Deepening Project. Getting deeper and deeper into the phases of the project, the project hit two major milestones, which has officially moved Post 45 from the Feasibility Phase to the Pre-construction Engineering and Design Phase.

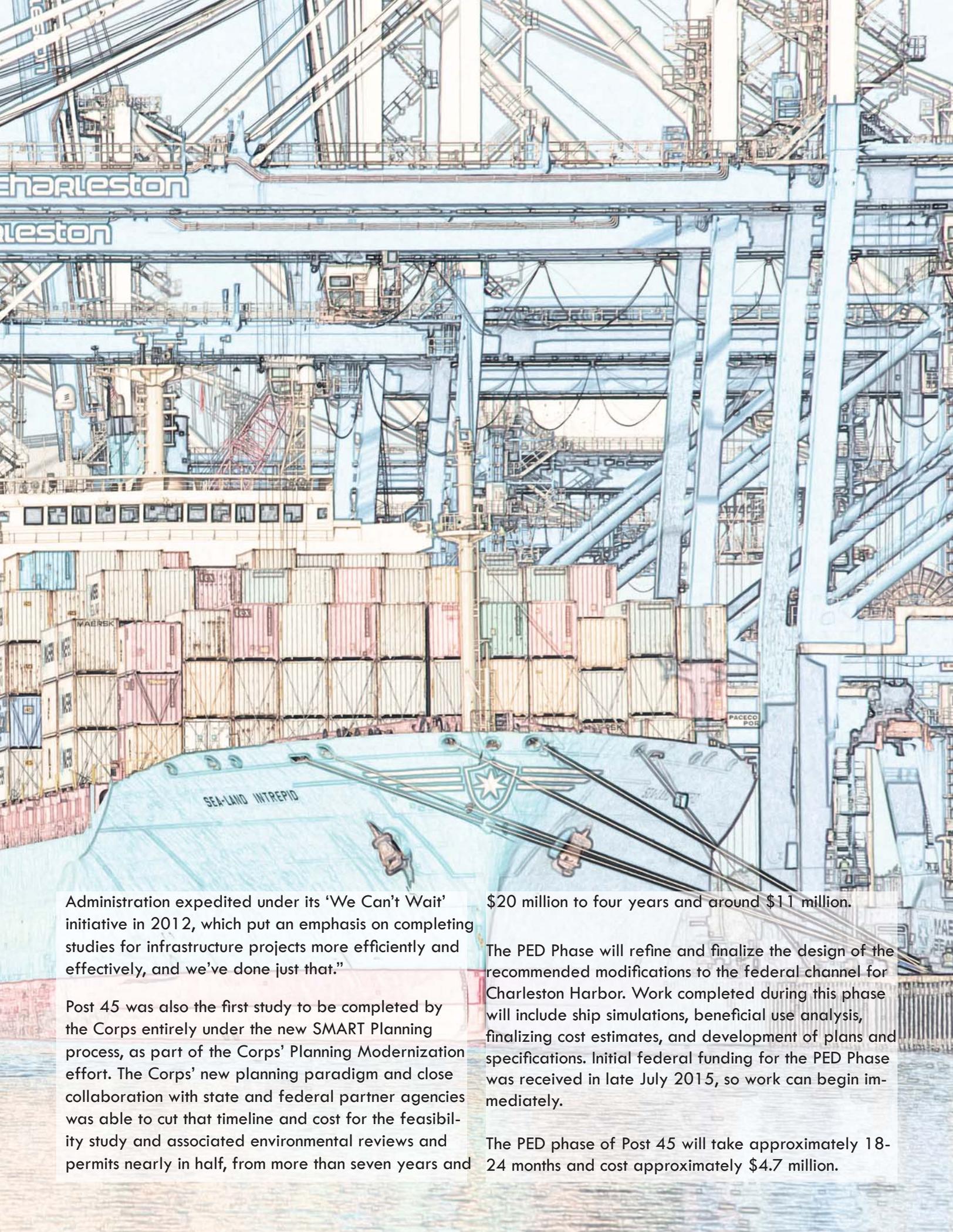
In December, on a cold evening, Lt. Col. Matthew Luzzatto, Charleston District commander, and Jim Newsome, president and CEO of the South Carolina Ports Authority, signed the Design Agreement for Post 45 in front of a beautifully lit Christmas tree. Signing the Design Agreement, which laid out the funding plan, officially moved the project into the PED Phase.

“This was a big milestone for the Post 45 project and the Charleston District,” said Luzzatto. “With the Design Agreement signed, we can stay on track with our streamlined planning process and continue to work with

our partners at the SCPA to reach the end goal of an improved, deeper harbor for Charleston.”

Just after the turn of the New Year, Assistant Secretary of the Army for Civil Works Jo-Ellen Darcy signed the Record of Decision for Post 45, which is the official notification to Congress that all requirements for the project had been met and it was now awaiting authorization and appropriation.

“We’re proud to be heading this charge to deepen Charleston Harbor to 52 feet,” said Luzzatto. “Post 45 was one of the first seven projects that the President’s



Administration expedited under its 'We Can't Wait' initiative in 2012, which put an emphasis on completing studies for infrastructure projects more efficiently and effectively, and we've done just that."

Post 45 was also the first study to be completed by the Corps entirely under the new SMART Planning process, as part of the Corps' Planning Modernization effort. The Corps' new planning paradigm and close collaboration with state and federal partner agencies was able to cut that timeline and cost for the feasibility study and associated environmental reviews and permits nearly in half, from more than seven years and

\$20 million to four years and around \$11 million.

The PED Phase will refine and finalize the design of the recommended modifications to the federal channel for Charleston Harbor. Work completed during this phase will include ship simulations, beneficial use analysis, finalizing cost estimates, and development of plans and specifications. Initial federal funding for the PED Phase was received in late July 2015, so work can begin immediately.

The PED phase of Post 45 will take approximately 18-24 months and cost approximately \$4.7 million.

Dredging

Article by: Glenn Jeffries

Photo by: Sara Corbett

The humming of a 1,200 horsepower diesel engine, pipes running in the middle of the channel, and a crew with ear plugs, hard hats, reflective vests, and life jackets was a long-awaited and an excitedly-anticipated sight bobbing in the waters of the Atlantic Intracoastal Waterway. The *Wilco*, an 18 inch cutterhead dredge, owned and operated by Southwind Construction, was at work.

The dredging of two critical reaches in the Atlantic Intracoastal Waterway near Breach Inlet, off Sullivan's Island and the Isle of Palms, and Jeremy

Creek in McClellanville was recently completed allowing for the safe passage of commercial and recreational vessels. These are heavily-traveled areas of the waterway, which created a safety concern, especially at low tide.

Breach Inlet is considered one of the main thoroughfares of commercial boaters and had become treacherously shallow. The dredging project created a 10 foot depth in this area.

"This area was our number one priority for assistance," said Brad Pickle, executive director of the AIWW Association.

Jeremy Creek is utilized by the commercial seafood industry that supplies our local restaurants with fresh catches, which is an important part of the local



the AIWW

economy. Dredging the reach to eight feet allowed the industry to keep thriving.

“I am very pleased that this area received some much needed relief,” said Rutledge Leland, mayor of McClellanville. “Without dredging, we weren’t going to be able to work, which would have put a lot of people out of jobs.”

The District partnered with Charleston County to fund this project. The County paid \$500,000 of the \$2.6 million cost to remove 250,000 cubic yards of material from Breach Inlet and 110,000 cubic yards from Jeremy Creek. That is roughly equivalent to 25 dump trucks of material taken out of Breach Inlet and 11 dump trucks out of Jeremy Creek. The dredged material was placed in Charleston District disposal sites close to each area.

“We are happy that we could help with some of the shoaling problems in the AIWW,” said Lt. Col. Matthew Luzzatto, District Commander. “It was something that has been needed for a while.”

The last time the waterway was dredged in various areas was six years ago using funds from the American Recovery and Reinvestment Act. Before you venture out on the AIWW, please check the Charleston District website for the latest channel conditions at <http://www.sac.usace.army.mil/Missions/Navigation/ChannelConditions.aspx>.





The Diverse Work We Do for the 81st RSC

By: Sean McBride

Since 2010, the Charleston District has been working with the Army Reserve's 81st Regional Support Command throughout the southeastern United States to conduct a wide-range of facility investment projects and base operating services to keep approximately 300 Army installations with 700 facilities working properly. The installations are broken down into 11 different regions across nine states and Puerto Rico. The work being done at each of these installations is vastly different and includes preventive maintenance and minor repairs to stop issues before they become problems. The list below gives an example of a few different types of work being done, represented by pictures within each region shown above.

- Region A- preventive maintenance on an HVAC system within an Army facility
- Region B- installing new chillers to maintain temperature control at installations
- Region C- inspecting HVAC roof vents to ensure they are in proper working condition
- Region D- installation of portable air conditioning units in workspaces to provide temporary cooling
- Region E- taking inventory of supplies and equipment, such as Army vehicles used when deployed
- Region F- constructing a safety platform for performing maintenance on power generators
- Region G- investigating leaks in roof membrane and windows and properly sealing them
- Region H- changing out electrical panels
- Region J- pumping out sewage backup and installing new pipes
- Region K- checking watertight-integrity on windows and brick exteriors
- Region P- ground vegetation removal and maintenance in areas around a wind turbine in Puerto Rico

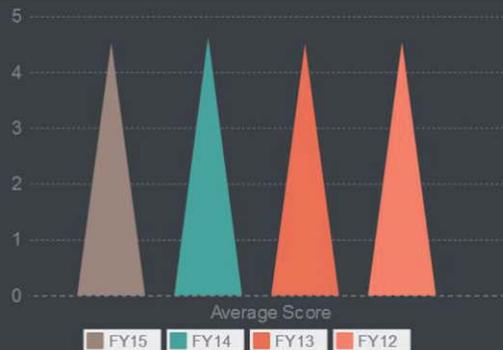
MILCON SURVEY

Results

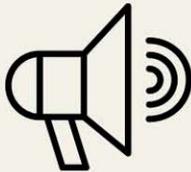
Fiscal Year 2015

Each year, our military construction customers complete a customer satisfaction survey to tell us how we are doing in 32 different areas of business. The complete scores are at the bottom.

Overall Customer Satisfaction Score



We scored an average of 4.53 this year, which is approximately where we've been the last four years. We're working hard to keep our score high.



Our response rate was the lowest it's been in four years.

72.4

Why? Our survey population decreased by four based on level of support we gave this year

Comments

These are a few comments we received multiple times in the open-ended questions



Improve Timeliness for contract modifications
4 people



Compliments to Staff
4 people



Responsive to Needs
3 people

Questions with Average Score (out of 5)

Seeks your requirements - 4.76
Manages your projects effectively - 4.57
Treats you as a member of the team - 4.90
Resolves your concerns - 4.67
Provides timely services - 4.33
Delivers quality products and services - 4.57
Delivers at a reasonable cost - 4.43
Is flexible to your needs - 4.62
Keeps you informed - 4.67
Would be your choice for future services - 4.67
Your overall level of satisfaction - 4.57
Planning - 4.45
Investigations and Inspections - 4.83
Environmental Studies and Surveys - 4.80
Environmental Compliance and Restoration - 4.60
Real Estate Services - 4.67
Project Management Services - 4.35

On-site project management - 4.33
Project Documentation - 4.50
Funds Management and Cost Accounting - 4.53
Cost Estimating - 4.47
Change management - 4.26
Contracting Services - 4.57
Architect-Engineer Contracts - 4.64
Engineering Design Quality - 4.50
Construction Quality - 4.53
Timely Completion of Construction - 4.33
Construction Turnover - 4.47
Contract Warranty Support - 4.44
End-User Satisfaction with Facility - 4.60
Maintainability of Construction - 4.53
Effectively addresses energy & environmental sustainability - 4.36



Exceeding Customer Service Expectations

By: Sara Corbett

Providing outstanding service to the Charleston District's customers, stakeholders and partners is one of the District's main goals. Being good stewards of the tax payer's money is another goal for the District. Josh Mueller, contracting specialist, is able to provide both of these services thanks to his recent achievement of completing his master's degree in building science at Auburn University.

"I have a bachelor's degree in business, which provided me with the resources needed to understand the business side of contracting, but I had no construction management background or knowledge," said Mueller. "The construction management program gave me the information I needed to provide better services to our construction customers and stakeholders and better value to the taxpayers."

Auburn University's College of Architecture, Design, and Construction curriculum is tailored specifically for construction contractors, and the U.S. Army Corps of Engineers Directorate of Contracting started sending contract specialists in August 2012 so they could learn actual construction concepts, current trends, enhance negotiating skills and improve technical competency. Increasing construction negotiating skills was the most useful tool that Mueller learned, and is now able to research trends and processes quicker and work with the contractor to see where costs can be cut or minimized.

The Directorate of Contracting was a strong advocate for training contract specialists in construction management as a way to strengthen the Corps' contracting capabilities. Mueller was a student in the second group of Corps employees to go through the program, which consisted of three consecutive professional certificates, plus an option to complete an additional research project in order to earn a master's degree. About 30 Corps' employees completed the three certificates in August 2015, and Mueller is one of five that went on to complete their master's degree. Before he even graduated, Mueller presented at the South Atlantic Division annual governance meeting in November 2015 about the benefits of the construction management program and how it can be utilized to enhance technical competency and retain talent in the Corps.

"I led negotiations on about a dozen construction projects, and I can safely say that my team and I saved the government more than \$1 million," said Mueller. "Saving \$1 million puts the \$50,000 Auburn program cost in perspective."

Obtaining these new capabilities was no small feat for Mueller. He started the program in August 2013 and graduated in December 2015. During this time, he spent 15 to 20 hours a week on schoolwork and every semester Mueller spent a week in class at Auburn University. When he started the program he was a newlywed, had a five-year-old daughter and, in August 2014, his second daughter was born adding to the challenges he overcame.

"It was difficult to balance family, work and school," said Mueller. "But I never lost sight of what I would gain and I am really proud of what I accomplished."

Congratulations to Mueller on completing his master's degree, not only bettering himself, but placing the Charleston District at the fore front of customer service.

Left: Josh Mueller stands outside the District building.
Top: Mueller with his class at Auburn University
Bottom: Mueller with his young family.





Brandon Scully



Working for the Engineer Rese

Written by: Sean McBride
Photos by: Sara Corbett

The U.S. Army Corps of Engineers' Engineer Research and Development Center, located in Vicksburg, Miss., helps solve our nation's most challenging problems in civil and military engineering, geospatial sciences, water resources, and environmental sciences. ERDC employees work on specialized projects and look at how they affect the entire nation. Many of ERDC's employees are doctors, scientists and researchers, but they have been looking to bring in more people with experience in Corps districts because they know how to apply the research to those settings.

The Charleston District has recently "lost" two employees to this initiative, with Brandon Scully, research civil engineer, taking a job with ERDC eight months ago, and Steven Currie, soil scientist, beginning this month.

Scully supports the national dredging program by helping to improve efficiency in how it's managed. Scully was drawn to the position at ERDC after working with Automatic Identification System data while finishing his master's degree at NC State University. AIS tracks vessel movements on waterways and oceans and can tell you where any ship is and what it's doing at any time. The Corps has nationwide access to most vessels sending out this data, so part of Scully's work at ERDC is tracking vessel interaction

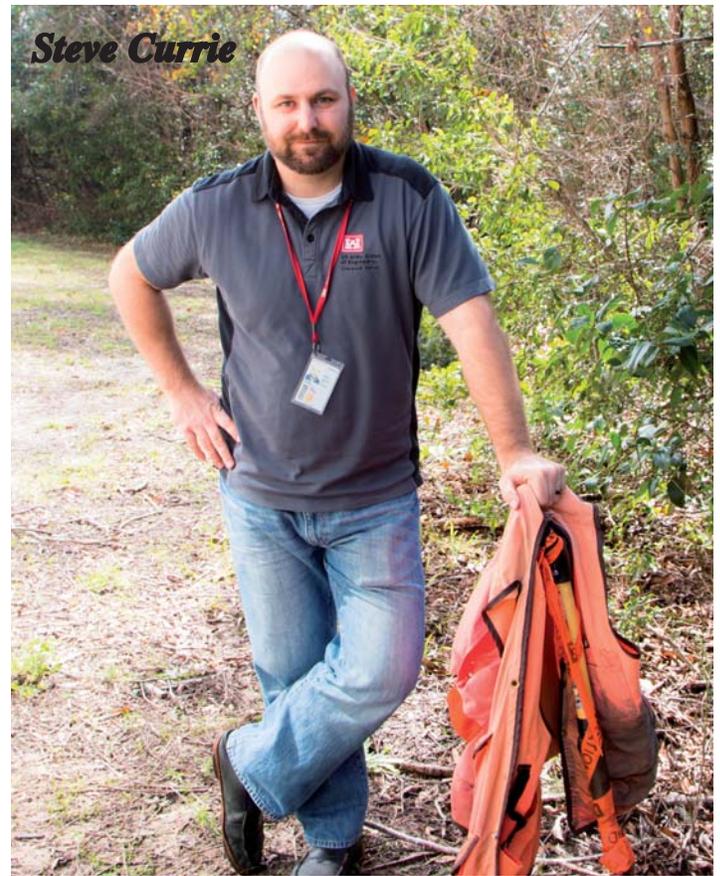
in the navigation system of the United States.

"The Corps has access to more information than it's ever been able to collect," said Scully. "We're working to figure out how to use this information to better understand Corps navigation projects and pick the slate of projects across the nation that results in the greatest benefits, helping decision makers apply funding to those projects."

Many of the projects he works on come through the Dredging Operations and Technical Support program. DOTS supports districts that have a short-term problem and lack the immediate ability to handle it in-house by using ERDC staff to solve it.

"I enjoy diversity and get to collaborate with a wide range of Corps staff across the country," said Scully. "On an individual district project, you might be able to save tens of thousands or maybe up to a million dollars. At the national level, the opportunity for savings is much more than that, and the savings get used to fund overlooked or underfunded projects. The variety of challenges beyond the Lowcountry keeps the work exciting."

Currie will begin his official ERDC duties in March as a re-



Research and Development Center

search soil scientist, but it won't be his first stint in the labs. Before coming to Charleston four years ago, he spent 90 days on a detail assignment at ERDC. His short time there left a big impression on both sides.

"I've always been a researcher at heart," said Currie. "I knew it would be a really good fit with my specialized skill set, which is important at the district level, but also beneficial to the regulatory program at the national level."

Currie's skill set is in soil science where he will be working to update technical manuals that will affect the whole Corps.

Those manuals provide wetland delineation guidance, which is a large part of a regulator's job. He'll also be part of ERDC's Wetland Regulatory Assistance Program where he will fly to different districts to conduct field visits, training, research, and produce reports when they need outside help.

"Businesses are now wanting to develop on more complicated wetland sites because a lot of the easily delineated areas have already been developed," said Currie. "I'll be supporting districts with technical expertise when they

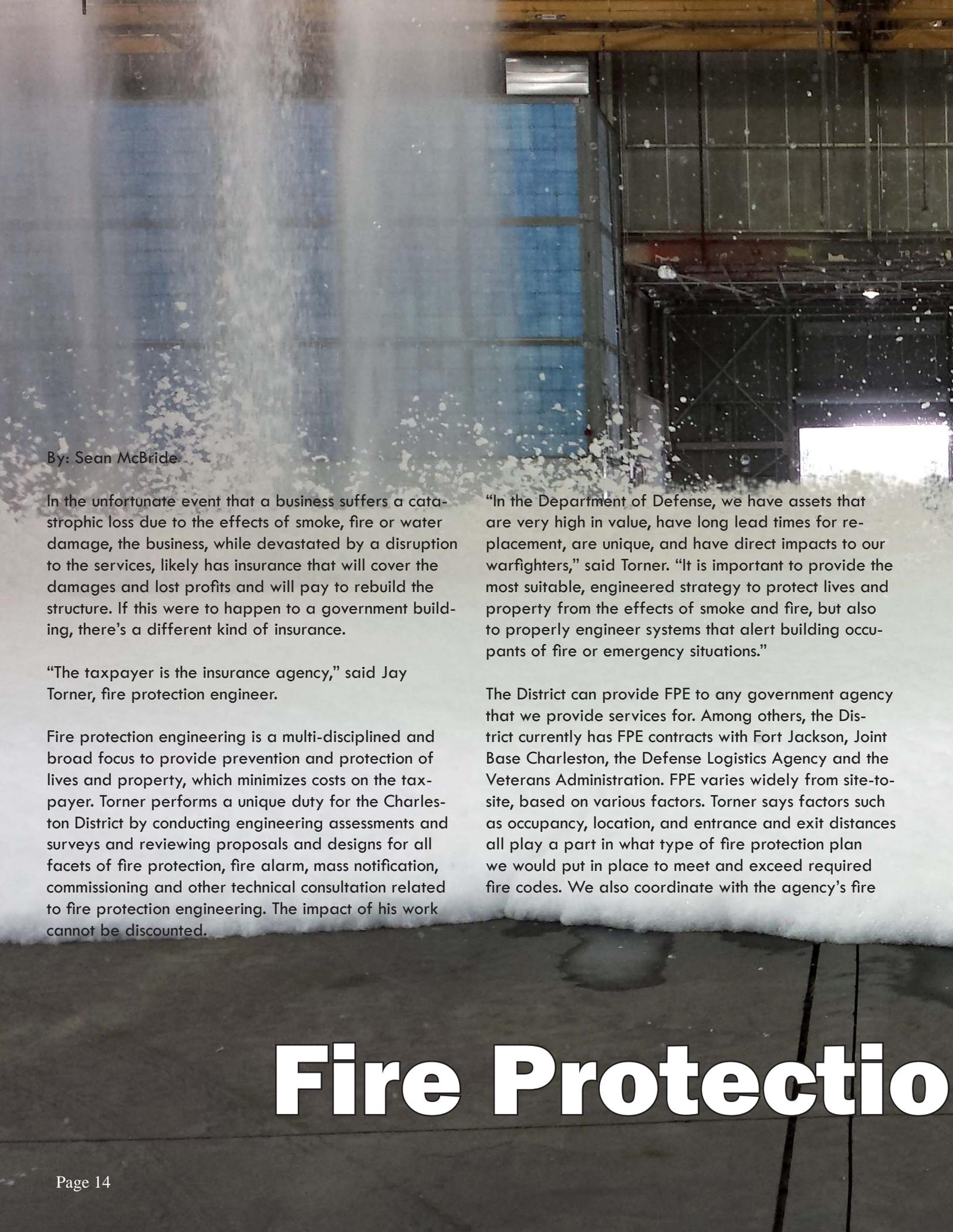
need it."

Currie has to relocate to Vicksburg, but says it was the easiest, most-difficult decision he's ever had to make.

"I knew I had to do it," said Currie. "They are beefing up their branch so it's the right time. But I'm much more prepared now because my experience in Charleston has helped me tremendously. Charleston has the best people and leadership really supports us, so it's tough to leave."

While Currie is moving to Vicksburg, Scully was able to continue to live in Charleston and work for ERDC remotely. A lot of the national dredging program projects that he works on are located in the South Atlantic Division region, so his experience here established a broader working relationship for ERDC.

ERDC is internationally recognized for their expertise in public engineering and environmental sciences research, and now two of their up-and-coming employees were cultivated at the Charleston District, putting us on the pulse of what is happening at a national level and showcasing that the skills learned in Charleston will benefit the entire nation.



By: Sean McBride

In the unfortunate event that a business suffers a catastrophic loss due to the effects of smoke, fire or water damage, the business, while devastated by a disruption to the services, likely has insurance that will cover the damages and lost profits and will pay to rebuild the structure. If this were to happen to a government building, there's a different kind of insurance.

"The taxpayer is the insurance agency," said Jay Torner, fire protection engineer.

Fire protection engineering is a multi-disciplined and broad focus to provide prevention and protection of lives and property, which minimizes costs on the taxpayer. Torner performs a unique duty for the Charleston District by conducting engineering assessments and surveys and reviewing proposals and designs for all facets of fire protection, fire alarm, mass notification, commissioning and other technical consultation related to fire protection engineering. The impact of his work cannot be discounted.

"In the Department of Defense, we have assets that are very high in value, have long lead times for replacement, are unique, and have direct impacts to our warfighters," said Torner. "It is important to provide the most suitable, engineered strategy to protect lives and property from the effects of smoke and fire, but also to properly engineer systems that alert building occupants of fire or emergency situations."

The District can provide FPE to any government agency that we provide services for. Among others, the District currently has FPE contracts with Fort Jackson, Joint Base Charleston, the Defense Logistics Agency and the Veterans Administration. FPE varies widely from site-to-site, based on various factors. Torner says factors such as occupancy, location, and entrance and exit distances all play a part in what type of fire protection plan we would put in place to meet and exceed required fire codes. We also coordinate with the agency's fire

Fire Protection

A large, billowing plume of white spray foam is being tested in a warehouse. The foam is thick and textured, cascading down from the top of the frame. In the background, there are large windows with a blue-tinted glass and dark metal frames. The floor is dark and appears to be concrete.

and emergency services to ensure the fire protection features are compatible with their operational requirements.

“For most customers, projects are planned from a mission or capability requirement for new facilities,” said Torner. “For existing facilities, projects are normally developed through inspections and maintenance actions based on a change in building occupancy or a change in policy.”

An example of the complexities of FPE can be seen in a DLA facility, where thousands of square feet of warehouse storage space is occupied by millions of units of materials. Not only is it important to protect the warehouse, but also the millions of dollars’ worth of goods the warehouse is storing. Another factor is that the materials are constantly being moved and stored in different places throughout the warehouse as new inventory comes in, so Torner’s FPE expertise must take

into account where fire protection measures are installed to cover all types and sizes of material.

“Fire protection engineers are unique in that they provide a multi-disciplined architectural and engineering approach,” said Torner. “They review the entire package for coordination of the various features of fire protection engineering from alarm and detection, fire rated construction and separation, mass notification, suppression systems and life safety features. These are all aspects that need to be considered for proper fire protection.”

Every agency is required to follow certain fire protection guidelines, but experts like Torner are there to ensure they know and understand everything that goes into FPE. The Charleston District is an available resource to provide any government agency with the services and guidance they need to properly protect their property and personnel from potential fires. For more information, contact Torner at 843-329-8163.

Background photo: Spray foam, used in the event of a fire, is tested at a warehouse.

n Engineering



Striving
to be
different

Article and photos by: Sara Corbett

The sounds of drilling, sawing, and kid's chatter greet guests at West Ashley High School. These sounds can only mean one thing, success! That is exactly what the robotics team at West Ashley High School is after.

Since the team's creation in 2013, there have been some growing pains, but this year they are better than ever.

"Our first year we came in dead last every time," said Noah Combs, junior. "Last year we did a little better, but we've done exponentially better this year and gotten first place in almost all of our competitions."

There are several reasons they have improved over the last few years, but the students credit their winnings to their new unique designs.

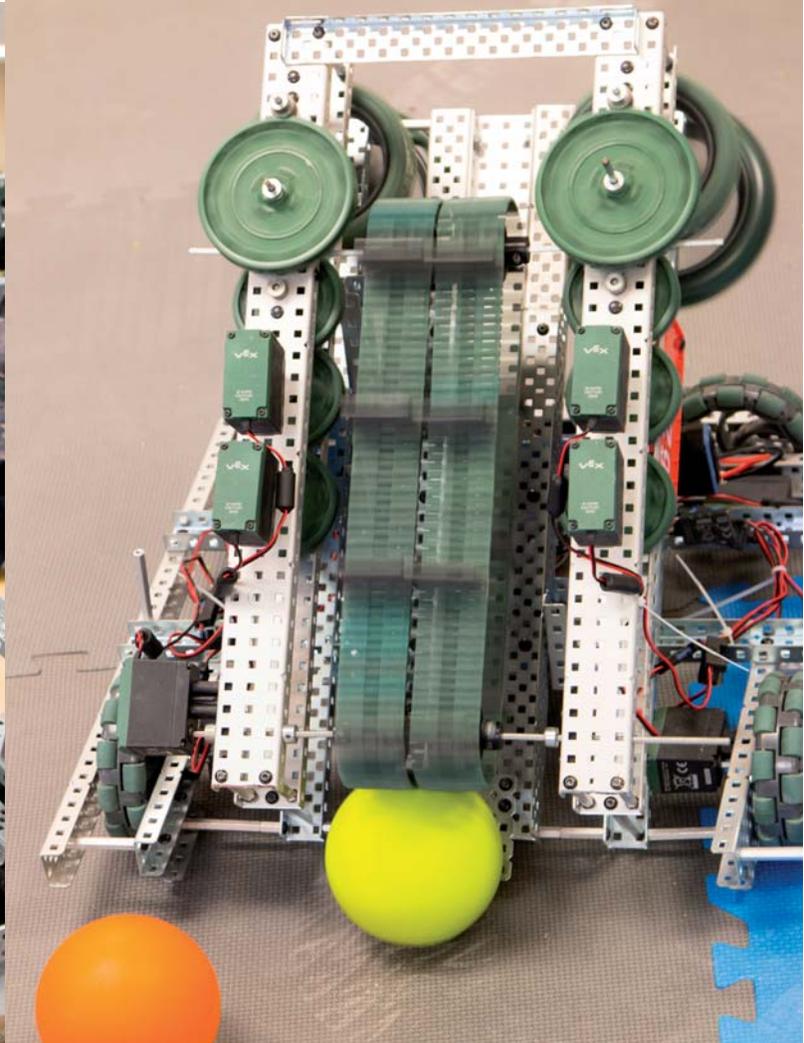
"We research different designs online and at the competitions all we see are robots that are total copies of what we saw online," said Matthew Baumgardner, sophomore. "Here are West Ashley, we strive to be completely different and our robots are completely different. It has the holonomic base, which gives it eight-degrees of movement, and the piston injection, which gives it extra speed. People are always trying to copy ours. We even have to put a blanket over it at competitions."

Creating and building these unique and winning machines is no easy feat. There are several steps and components before robots even get to the testing phase. It has to be designed, then built, then programmed and finally tested.

"We start with screws, nuts and bolts, pieces of metal, motors and sensors," said Nicholas Holmes, robotics teacher and team coach. "They are as basic as possible. The entire robot is designed and built over the course of a couple of months. Programming takes an additional month. Then we test and redesign constantly to get the perfect robot."

Once the robot is completed, it is time to take it to competitions. The objective of the competition is for the robots to gather balls that are spread throughout the field and shoot them in a net about 14 feet away. There is a high net and a low net, with the high net being worth more points. There are also orange balls on the field that are worth 10 points in the high net, which is double the green balls. The robotics team's strategy is to collect all the orange balls and shoot them in the high net to maximize the amount of points they can win.

What does the U.S. Army Corps of Engineers have to do with all this? Since promoting STEM is a priority for the Corps, mentoring the team was a natural fit for the District. One of the Charleston District's mechanical technicians, Brad Ryczko, volunteered to help the robotics team take their robots to the next level in hopes of winning at the U.S. Open Robotics Championship in April.



“Brad has been an amazing asset for this program,” said Holmes. “He gets along with the kids very well and is a tremendously positive role model for my students.”

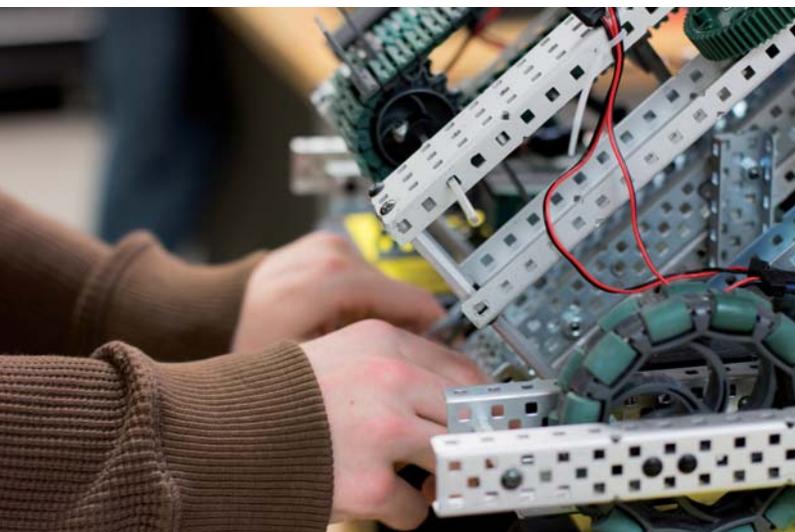
While Ryczko works on construction service contracts and is a member of the mechanical support team for the Corps and has a degree in mechanical engineering technology, he is no stranger to building robots and over time has learned a few tricks to building a winning robot.

“The first robot I ever built was in 2001 for a local battle bots match,” said Ryczko. “Our bot failed that round and caught fire on the field. I am confident that this won’t happen to WAHS at the championship.”

Thanks to Ryczko’s dedication and help to the team, the students think they have a good shot of winning at the championships. “I believe we will win the championship,” said Combs. “Considering how we have placed locally against all the other teams. Our last competition was the closest, but even then we still scored 50 points more than them.”

The Charleston District will be rooting for the WAHS robotics team at the championship in April!

Left: Ryczko tweaks a robot while it’s shooting balls.
Top left: A student adds the finishing touches to his robot.
Top right: The robot picks up balls and shoots them into a net.
Bottom left: A student works on his robot.
Bottom right: Ryczko and Holmes troubleshoot a robot with a student.



Two Female Survey Technicians

Article by Sean McBride

Photos by Sara Corbett

What type of person would you picture if asked to envision someone who works on a boat for a living? You'd probably think of the cast of *Deadliest Catch* or *The Perfect Storm*. While the cast of the Charleston District's survey team spends many of their days on the water, they don't quite have that weathered look, especially the two female crew members.

Jennifer Kist and Sonja Tyson serve as survey technicians aboard the *Survey Vessel Evans*, the District's 42 foot long floating map maker. The crew of the *Evans* cruises up and down Charleston Harbor, the Atlantic Intracoastal Waterway, the coast of Folly Beach and many more places creating sonar images of the conditions of the water's floor below them. The District looks to maintain safe passage for vessels in the federal channels of South Carolina, and the survey crew provides the data that shows what is at the proper depth and what needs to be dredged.

Out of 109 full-time survey technicians in the entire Corps of Engineers, only seven are female and Kist is one of them. After graduating from the College of Charleston, Kist briefly left the Lowcountry to work for the National Oceanic and Atmospheric Administration in Virginia, but was drawn back to Charleston in 2015. She works to transform the data outputs of the survey vessel's sonar into something that people can understand.

"Sand is always moving, so we always have to keep track of where it's going," said Kist. "I love how everything we do changes every day, from one minute analyzing statistical models in the office to surveying the harbor entrance channel to riding up and down the beach with a laser scanner. Knowing the depth of [everything] to centimeter-accuracy is very important."

Tyson is a part-time survey technician who came to the District after stints with other organizations using sonar and surveys to analyze fish habitats, topographic changes from oyster reef development and methane leaks in different parts of the country. While she's worked on a diverse set of ecosystems, she enjoys the unique environment Charleston offers and wants to be part of innovation.

"Survey work provides the opportunity to engage in some of the most exciting realms of discovery and



Professionals Making Their Mark

technological innovation,” said Tyson. “Only seven percent of the world’s oceans have been mapped, so there is plenty of room for new discoveries.”

Being females has no impact on how they see themselves as being perceived amongst the survey team. Tyson says that it’s expected that there are less females in the group because it is a STEM field, which typically has more males, but that that is changing.

“Our District understands that fostering an open and diverse community that draws from an array of unique experiences and viewpoints is a necessary step to achieving our mission,” said Tyson. “I don’t believe any of us in survey think about the male/female ratio directly; we depend more on what skills each individual can offer.”

“We’re a team, definitely,” echoed Kist. “Honestly I don’t think about being a female at work until someone reminds me of it. Unfortunately, the main issue standing in the way of females in STEM is the attitude towards them as opposed to the opportunities presented to them.”

The survey work done by Kist and Tyson is critical to keeping commerce and recreation moving through the Lowcountry. Kist thinks the public doesn’t realize how much “stuff” sits at the bottom of Charleston Harbor, such as a sunken barge or ship, and it makes her realize that it’s probably there because it hit something. That puts into perspective for her just how many people’s livelihoods depend on knowing the conditions of the harbor.

Both Kist and Tyson are doing an incredible job of helping the District monitor and maintain our federal channels to create positive economic and social benefits for the area. Their work identifies the problems before they become problems so we can keep up with what people expect from our coast.

Left top: Jennifer Kist lowers a sound velocity probe into the water.

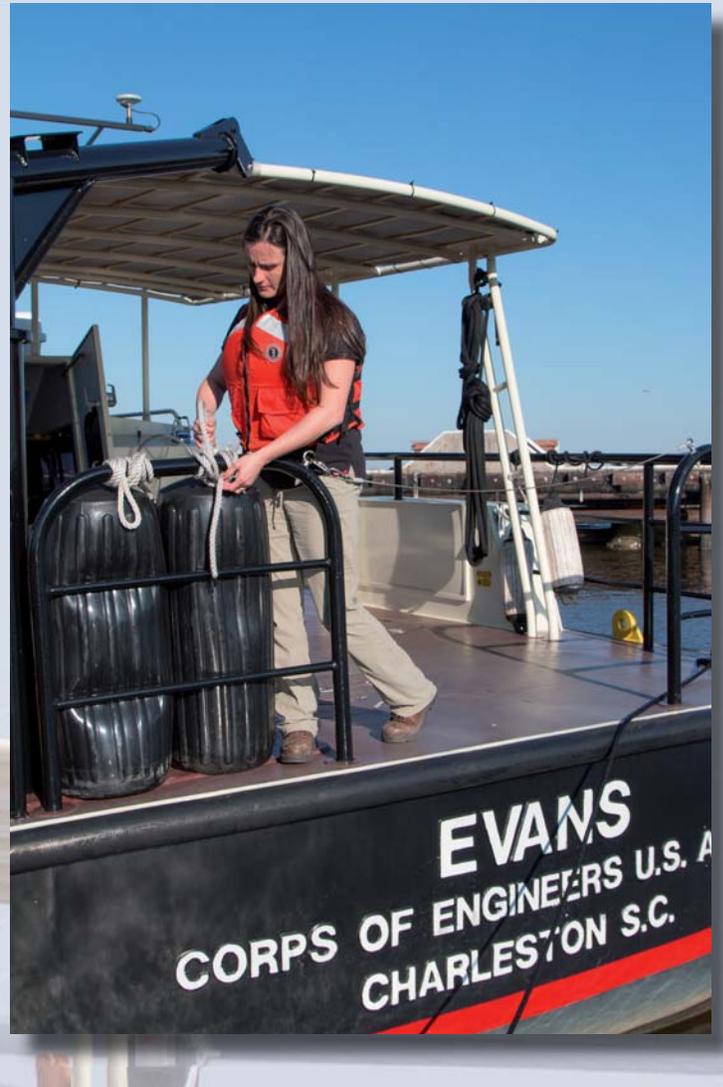
Left middle: Kist ties on the flags.

Left bottom: Kist walking along the SV Evans.

Right top: Sonja Tyson secures a fender.

Right middle: Tyson ensures the various pieces of the survey vessel are functioning.

Right bottom: Tyson tests the multi-beam sonar equipment.



Species Spotlight - Atlantic Sturgeon

By: Fisheries Biologists Joe Moran (Charleston District), and Bill Post and Chad Holbrook (SCDNR)

The Atlantic sturgeon (*Acipenser oxyrinchus*) is an ancient species, dating back at least 70 million years. They can grow to be 14 feet long and weigh as much as 800 pounds and the oldest known was 60 years old. Atlantic sturgeon may be found in the Atlantic Ocean and in rivers from Maine to Florida, and were federally-protected under the Endangered Species Act in 2012.

Sturgeon do not have scales like other fish but are instead protected by a series of bony plates, known as scutes. They also have a series of whiskers that help sense water conditions and prey. Atlantic sturgeon are considered bottom dwellers and, despite their large size, feed on small creatures, such as worms and shrimp. Also, while the reason is unknown, Atlantic sturgeon are known to breach, or jump out of the water, similar to humpback whales.

In South Carolina, Atlantic sturgeon have been captured in the Great Pee Dee, Waccamaw, Santee, Cooper, Edisto, Combahee, and Savannah Rivers. They are an anadromous species, meaning they are spawned and spend their early life stages in freshwater and then move to saltwater as adults. Once mature, which varies from six to 18 years, adults migrate back to freshwater to spawn themselves. Female Atlantic sturgeon may carry between 400,000 and eight million eggs, depending on size. Atlantic sturgeon are capable of long migrations up and down the entire Atlantic coast while they look for the ideal spawning habitats of gently flowing water over gravel-bottom sections of the river. That way, their eggs can attach to rocks and

have places to hide ones they hatch.

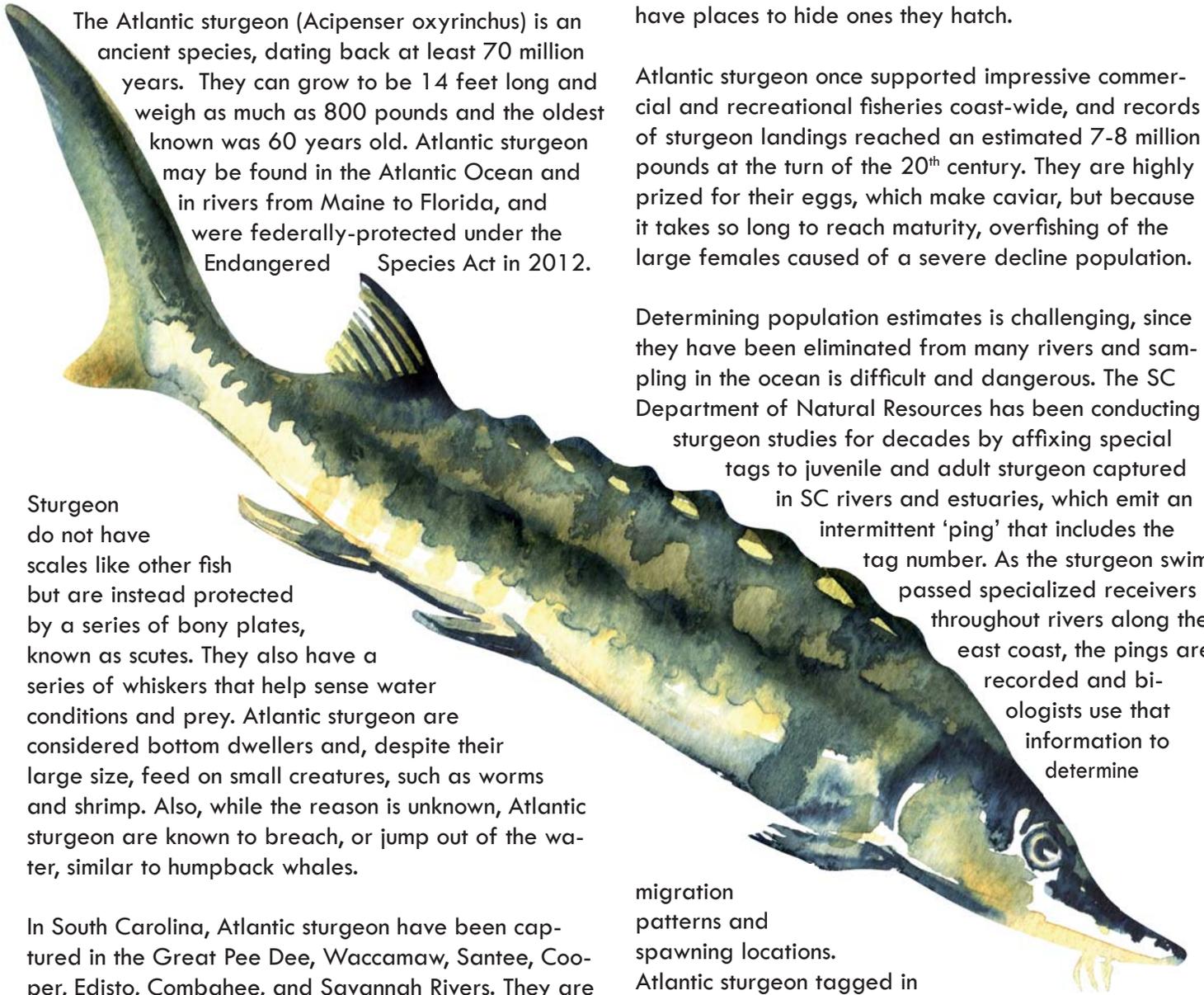
Atlantic sturgeon once supported impressive commercial and recreational fisheries coast-wide, and records of sturgeon landings reached an estimated 7-8 million pounds at the turn of the 20th century. They are highly prized for their eggs, which make caviar, but because it takes so long to reach maturity, overfishing of the large females caused of a severe decline population.

Determining population estimates is challenging, since they have been eliminated from many rivers and sampling in the ocean is difficult and dangerous. The SC Department of Natural Resources has been conducting sturgeon studies for decades by affixing special tags to juvenile and adult sturgeon captured in SC rivers and estuaries, which emit an intermittent 'ping' that includes the tag number. As the sturgeon swim passed specialized receivers throughout rivers along the east coast, the pings are recorded and biologists use that information to determine

migration patterns and spawning locations.

Atlantic sturgeon tagged in South Carolina have been tracked as far away as New York and Connecticut.

The Charleston District works hard to help improve the health of South Carolina's superb natural resources and habitats through proactive steps to help our SCDNR partners identify the population sizes of sturgeon in both the Cooper and Santee Rivers to contribute to our knowledge of species such as the Atlantic sturgeon.



Encouraging Small Business Participation

By: Rose M. Stokes-Small, small business deputy

The Small Business Act of 1958 states, “The government should aid, counsel, assist, and protect the interests of small-business concerns... to maintain and strengthen the overall economy of the nation.” The U.S. Army Corps of Engineers, Charleston District takes this to heart and extends their policy to provide maximum contracting opportunities to small businesses.

Small businesses are independently owned and operated, not dominant in their field of operation and meet special size standards for employees and annual revenues. There are eight categories of the small business program, but only five have required reporting goals. They are small businesses, women-owned small businesses, service-disabled veteran-owned small businesses and Historically Underutilized Business Zones small businesses. The SBA is responsible for ensuring that goals in these categories are established annually and the Charleston District awards relative percentages of contracts to each of these categories.

The District’s contract acquisition team works on the

principles of integrity, honesty and fairness, and has specific actions they take to ensure small businesses are awarded appropriate contracts, such as any contract between \$3,500-150,000 are reserved for small businesses, or determining if contracts of more than that amount could be performed by a combination of two small businesses. Another action is encouraging large businesses that are awarded large contracts to provide subcontracting opportunities to small businesses.

In fiscal year 2015, the U.S. Army Corps of Engineers as a whole awarded more than \$5.8 billion in contracts to small businesses, including more than \$128 million from the Charleston District. In FY15, the District achieved its small business goals in all but one category and awarded 81 percent of all contracts to small businesses, which resulted in three awards received at the annual Society of American Military Engineers (SAME) Small Business Conference.

The Charleston District is proud to provide contracting opportunities to all categories of small businesses. This creates a positive image of high ethical standards that small businesses are based on and want to work for.

Total US Business	Actions			Dollars		
US Business (Large/Small)	678			\$158,848,173		
Socio-Economic Category	Actions	% Actions	Dollars	% Dollars Achieved	Goal	Variance
Small Business	525	77.43 %	\$128,777,502	81.07 %	41.50 %	39.57 %
SDB	296	43.66 %	\$82,408,932	51.88 %	19.00 %	32.88 %
8(A) Procedures	83	12.24 %	\$36,074,782	22.71 %		
Veteran Owned SB	83	12.24 %	\$9,711,217	6.11 %		
Service Disabled Veteran Owned SB	67	9.88 %	\$7,966,246	5.02 %	3.00 %	2.02 %
HBCU/MI	0	0.00 %	\$0	0.00 %	2.50 %	-2.50 %
Woman Owned SB	114	16.81 %	\$47,221,505	29.73 %	7.00 %	22.73 %
HUBzone SB	147	21.68 %	\$29,915,828	18.83 %	11.00 %	7.83 %

Deputy Commander Promoted

By: Narissia Skinner, family readiness coordinator
 Congratulations are in order for our beloved Deputy Commander, Nathan Molica, who has recently been promoted to the rank of Lieutenant Colonel. We are very proud of his accomplishments. He naturally possesses a leadership quality that has been recognized and identified by all that he comes in contact with. Molica has received a dozen medals and badges and has held numerous challenging positions throughout his 16 years of service in the Army, which have all helped him serve the Charleston District well. His service and dedication to duty has reflected great credit upon himself and upholds the highest traditions of the United States Army and the Corps of Engineers.
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Lt. Col. Matthew Luzzatto, District Commander, and Lt. Col. John Litz, former District Commander, remove Molica’s Maj. rank and put on his Lt. Col. rank.

Travis Hughes

Travis.G.Hughes@usace.army.mil

MEET

What is your position?

Chief, Regulatory Division

What are you most excited about in your new position?

Working with the entire division to help create a vision for the future of South Carolina in the environmental realm. It's a great balance to bring new companies to the area but also ensure that we keep our environment intact. We've been a part of bringing a lot of big companies to the area lately, but we have to make sure we create ways for them to mitigate for lost wetlands.

Who is your favorite leader of any kind and why? Theodore Roosevelt, he was great American, conservationist, naturalist, and family man. He took the view that the President is a "steward of the people" and should take whatever action necessary for the public good unless expressly forbidden by law or the Constitution.

What is the best leadership advice you've received? Surround yourself with good people in work and in life and you will be happy and successful. This is plain and simple advice, but it has served me well. I am very fortunate to have a great family and friends, an exceptional team and strong professional network.

What are the most important decisions you make as a leader at your business/organization? I routinely have to make decisions that affect people and the environment. In Regulatory, we have many stakeholders involved in our processes, each with different missions and goals. I strive to accomplish the Regulatory program's mission to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions.

What is the biggest challenge facing business leaders today? Communication. This has always been a challenge, however, with ever changing technology, numerous modes of communication and less incentive to talk face to face, it is even more important to ensure we understand one another.

What was your biggest mistake as a leader and what did it teach you? Early on, I was guilty of putting too much trust in others to complete tasks, assuming that they would be done on time and to the level of quality that I expected. After getting burned several times, I modified my approach to "trust but verify". I prefer to give people the freedom to work independently, but I find that it is important to check-in to ensure that they are meeting my expectations.



OUR:

Holly Carpenter

Holly.A.Carpenter@usace.army.mil

What is your position?

Civil Works Project Manager for the Charleston Harbor Post 45 Deepening Project

Describe your job.

I am responsible for ensuring that a federally funded project is completed on time and within budget. I manage the project budget, track project milestones, and conduct project coordination to move the project toward completion with the everyday contributions of the Charleston District team and external sponsors and stakeholders. I strive to think about the overall project in advance and seek information and guidance in order to make decisions that reduce the risk of issues towards project implementation.

What is the most unique thing that you bring to the District?

I am passionate about the civil works programs for the services we provide, but I know this is not unique after seeing the dedication of my co-workers, despite the policy challenges that are often associated with our work. I have experience in multiple aspects of the civil works program, but I am excited for the challenges and professional growth of my everyday duties.

What is the most rewarding part of your job?

The most rewarding part of the job is to see the implementation of civil works projects that are important to the District, our sponsors and the communities in which we work and live. Also, site visits to beaches or on boats are a definite plus!

Highlight a notable milestone or memory in your career.

I keep a jar of beach quality sand at my desk that was a gift from my first federal project that was constructed. Also, I completed my master's degree with a successful thesis defense in July 2014 after several years of effort to complete classes at night and a couple more years of on and off thesis research. I'm very proud of this because it took a lot of hard work and dedication.

What goals do you hope to accomplish in your new position?

Currently, I serve as the project manager of the Charleston Harbor Post 45 Deepening Project, which is in the Pre-construction Engineering and Design (PED) phase of work. I am excited to work on a complex and challenging project which has already made incredible progress as one of the first projects to have the Feasibility Report successfully transmitted to Congress under the Corps streamlined planning guidelines. My goal is to be a part of the team that continues the Post 45 Project's progress and record as an example project to follow by other USACE Districts while fulfilling the needs of the Charleston Harbor and the nation.



Meet BOBBER The Water Safety Dog



The Charleston District has recently welcomed a new team member, Bobber the Water Safety Dog. Bobber has been spreading the Corps word to ALWAYS wear a life jacket whenever you are near water. If you would like Bobber to attend your event or school function please call 843-329-8174.

