

PALMETTO CASILE

Winter 2013 Volume 5/Issue 1

**A Great Start to
A Great Year!**



News Magazine of the U.S.
Army Corps of Engineers,
Charleston District

Commander:
Lt. Col. Edward P.
Chamberlayne
843-329-8000

Deputy, Programs and
Project Management:
William Stein
843-329-8055

Corporate Communications
Office:

Corporate Communications
Officer:
Glenn Jeffries
843-329-8123

Editor:
Sara Corbett
843-329-8174

Writer:
Sean McBride

Circulation: 1,100

The Palmetto Castle is a quarterly unofficial publication authorized under the provisions of AR 360-1 under supervision of the Corporate Communications Office. Editorial views and opinions expressed are not necessarily those of the Corps of Engineers or the Department of Defense. Inquiries, comments and requests for electronic copies can be forwarded to the editor of the Palmetto Castle by e-mail to :
PalmettoCastle@usace.army.mil

CONTENTS

THIS ISSUE

District Commander's Message	Page 3
Turning Bowling Alleys Into Offices	Page 4
Around the World in However Many Days it Takes	Page 6
What our customers are saying...	Page 8
Passing 600,000 Fish	Page 10
Digging into the Haile Gold Mine Project	Page 12
Evolving to Keep the Public Informed with Apps	Page 14
Meet our...	Page 16
Kandahar, Afghanistan: William Davis' Daily Life in the Combat Zone	Page 17
Palmetto Happenings	Page 18
Tidbits	Page 20

Be sure to follow us:

<http://www.sac.usace.army.mil>

<http://twitter.com/CharlestonCorps>

<http://www.youtube.com/USACESAC>

<https://facebook.com/CharlestonCorps>

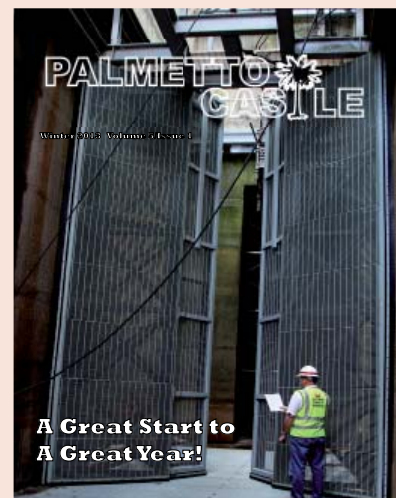
Correction:

In the previous issue, we incorrectly reported the number of general permits issued in the year end infographic, the correct number is 467 general permits issued.

Submissions:

If you would like to submit news, features, photographs or other content to be included in an upcoming edition of the Palmetto Castle, please submit to PalmettoCastle@usace.army.mil. Publication will be determined by the editor.

On the cover....



This issue includes articles about renovations the Charleston District has recently completed. One such renovation is to the fish lift at St. Stephen Powerhouse and Dam, read more about this project on page 10.

From the Commander

Greetings from Charleston!

The Charleston District is rested and ready to tackle Fiscal Year (FY) 2013 after spending some much deserved time with friends and family over the holidays. Although there is much uncertainty with the federal budget, we are making every effort to meet and exceed our customers' expectations for this year. We are already jointly developing scopes of work with our customers, designing projects, and awarding contracts when funds are available.

In this issue of the Palmetto Castle, you will read about the \$10 million renovation we recently completed for the Department of State, our newly refurbished fish lift at our powerhouse in St. Stephen that recently underwent long overdue renovations, the revised permit application from Haile Gold Mine Inc. which has proposed a substantial reduction in impacts, our GIS capabilities, and the results of our recent military customer survey. I would like to personally thank each of our military customers for providing feedback on this year's annual survey – we depend on your input to improve our delivery to you. For our civil works customers, your survey will be launched in February and I look forward to hearing from you as well.

I would also like to point out the progress we have made in a few other areas recently. I am continually impressed with the dedicated team here in Charleston that serves you.

Charleston Harbor Deepening Study (aka Post 45) Update: We are making tremendous progress with the Post 45 study. Last August, we awarded \$2 million in contracts to draft reports, develop models, and to collect data necessary for our team to analyze several different alternatives (or options) for the Charleston Harbor deepening (and widening in some areas). These efforts include testing sediments for disposal in our ocean disposal area, conducting a cultural and historic resource survey of the harbor, and developing an improved environmental model to predict changes in the harbor based on specific deepening/widening alternatives. We are nearly 50 percent complete with these initial efforts which will enable our team to ultimately make the best alternative that will benefit our nation.

Customer visits: We have been very busy meeting with each of our major customers over the past few months. These customers include Fort Jackson, MARFORRES, DLA Installation Support, 81st Regional Support Command (USAR), and Joint Base Charleston (628th Civil Engineering Squadron and eight mission partner organizations). In addition, we held partnering sessions with Santee Cooper, SCDNR, SCD-



Pictured with: Jay Herrington, US Fish and Wildlife Service, Field Supervisor, South Carolina Ecological Services Field Office

HEC, SCDOT, USFWS, and EPA Region IV. These events are invaluable for us to better understand your needs, requirements, and how we can improve our services.

Small Business Achievements: In FY12, we awarded more than \$120 million to various small businesses and exceeded our goal of 43 percent by achieving over 48 percent of total contract awards to small businesses. Our small business program was recognized at the annual SAME Small Business Conference for awarding 11.6 percent of total contracts (over \$28 million) to Service Disabled Veteran Owned Small Businesses. We are very committed to supporting the growth of small businesses and will continue to improve our support in FY13!

Deployed members of Team Charleston – our Palmetto Patriots: Six members of the Charleston District are deployed to Afghanistan serving our country and the citizens of Afghanistan. We are tremendously proud of them and look forward to their safe return. Please keep them in your thoughts and prayers.

Please check out our District facebook page (Charleston-Corps) for updates and articles about our support to you. Thank you for the opportunity to support you, the citizens of South Carolina, and our customers and partners across South Carolina and our nation.

A handwritten signature in black ink, appearing to read "E. Chamberlayne". The signature is stylized and cursive.

Edward P. Chamberlayne, P.E.
Lt. Col., U.S. Army
Commander and District Engineer
edward.p.chamberlayne@usace.army.mil

TURNING BOWLING

Article by: Sean McBride, public affairs specialist
Photos by: Sara Corbett, public affairs specialist

A little more than a decade ago, off-duty Navy Sailors used to walk through the Navy Base in North Charleston to a particular building and throw bowling balls down the lanes at the ten pins waiting to crash down. Now, civilians walking to that same building are headed to work to help Department of State (DOS) employees worldwide with their human resources (HR) needs.

In that time, the old Navy Base has been turned into what is now known as the Federal Complex and now hosts several federal agencies, both military and civilian. Many buildings on the complex have been repurposed to fit the needs of new tenants.

The building that was once a bowling alley was originally expanded and turned into a physical fitness center for officers at the Federal Law Enforcement Training Center to train in hand-to-hand combat. Now, the building is operated by the DOS and they've taken a whole new approach to using the space.

The \$10.5 million renovated 40,000 sq. ft. facility will now be home to the DOS HR department. In an effort to reduce the costs of operating out of a Washington, D.C. facility, DOS is relocating many of their HR operations to the Lowcountry. The updated building will now also host a 24-hour call center that will take questions from DOS employees around the world about any personnel issues they may be having.



ALLEYS INTO OFFICES

“This is the first time we’ve ever done work for the Department of State,” said Shawn Boone, project manager. “This project is bringing to light a new relationship and new potential project partnership opportunities in the future.”

The project will be submitted for a Leadership in Energy and Environmental Design (LEED) Silver certification. The most unique qualifying aspect of the project was the installation of several “light tubes” on the ceiling of the building. These approximately 18 foot long tubes provide solar light inside the building, thereby reducing the energy costs necessary to illuminate employees’ workspaces. Other qualifying factors for the award include that the project was a renovation, versus a new construction, and that construction debris was separated and recycled during the process instead of hauling it to the landfill.

“Staff from two major agencies worked closely together for a long time on this large and complex project,” said Cyrus Balan, DOS project manager. “The team overcame construction and coordination challenges, last-minute changes, and unforeseen conditions that required a superior skill set and level of professionalism and teamwork that is rarely achieved. We look forward to working with the Corps of Engineers in the future.”

The Charleston District is also looking forward to other potential projects with the DOS in the future and hopes that the new occupants of this HR facility don’t hear the echoes of old bowling pins in the hallways.



AROUND THE WORLD IN... HOWEVER MANY DAYS IT TAKES

By: Sean McBride

Do you know what a capitalized fuel facility is? It is a fuel facility owned and maintained by the Defense Logistics Agency (DLA). At DOD bases around the world, DLA supplies fuel and maintains fueling infrastructures. Depending on the criticality of the systems and the annual fuel use, either the base/post or DLA owns and operates the systems. Following a DLA matrix for fuel consumption and criticality, DLA takes over when certain trigger points are reached.

You probably didn't know any of that, but that's what people like Jim Hanks are for. Hanks is an Army cathodic protection program manager working with DLA for the Charleston District. Hanks is part of a unique group of personnel that are organized in a centrally managed program by DLA and do work for all branches of the military whereas most of DLA's programs are separate and work individually for different branches. Since Hanks' program works with every branch, it is responsible for Cathodic Protection Systems at more than 350 bases worldwide.

Cathodic protection (CP) helps slow down corrosion in metals using two slightly different methods. One type of system is the galvanic system, which takes a piece of metal (the anode), that is more electro-negative than the metal to be protected (the cathode), and attaches them together so that the anode can be "sacrificed" and give off electrons to the metal being protected. The other system, called an impressed current system, uses the same principle to protect larger structures such as piers in seawater, larger tank farms, and increased length and diameter pipelines. With impressed current systems, a rectifier takes AC current, converts it to DC current,

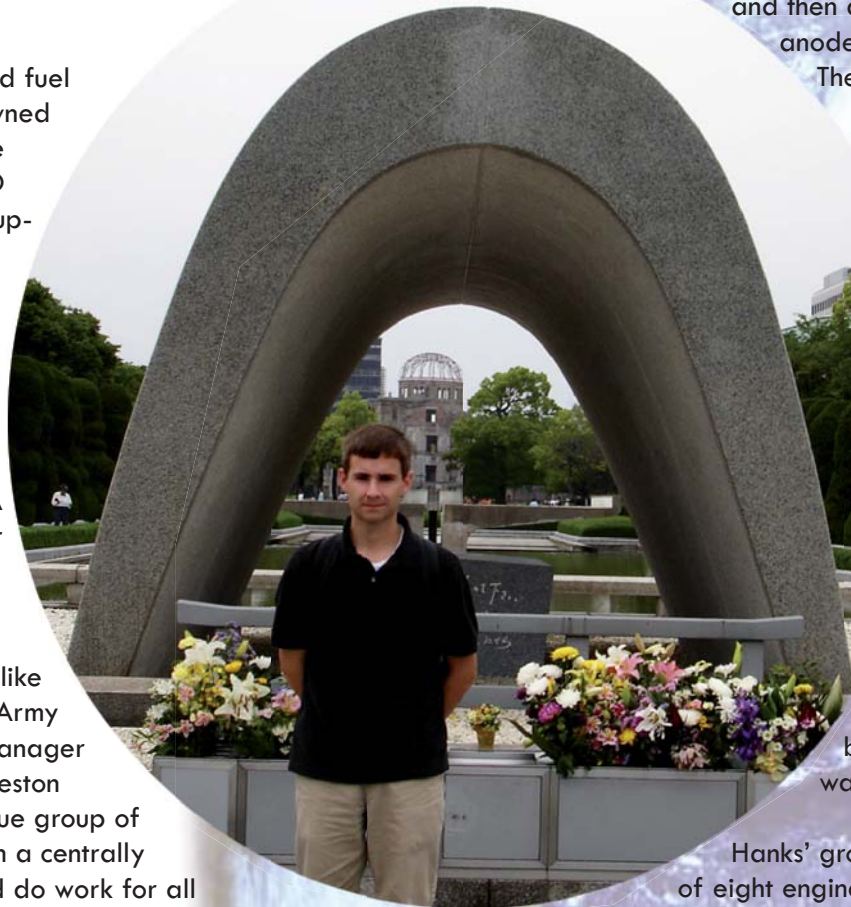
Palmetto Castle

and then attaches to the anodes and cathodes. The electrons are then "driven" from the anode to the cathode to protect the structures.

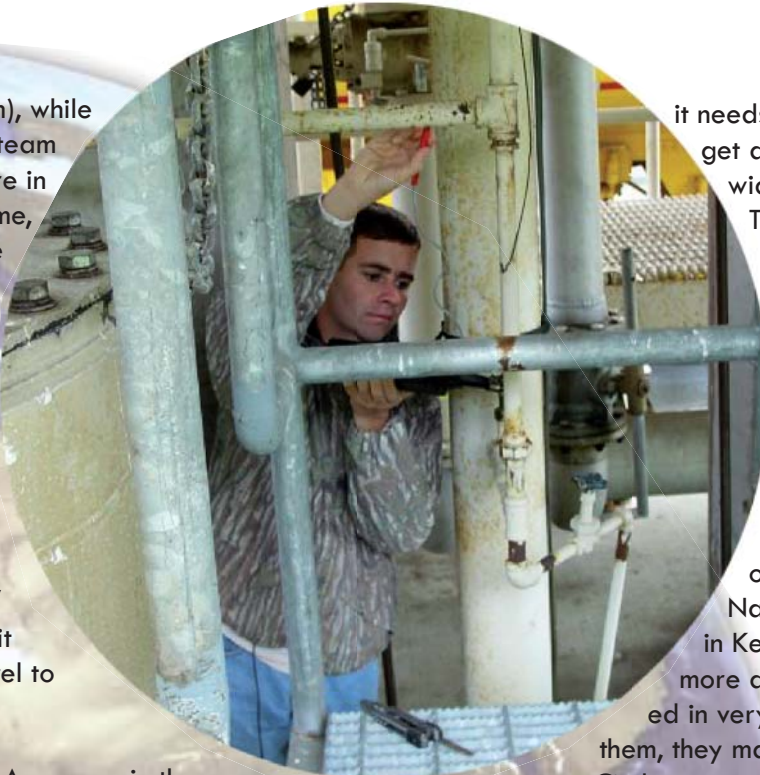
"Pretty much everything we work with is steel and it corrodes easily," said Hanks. "We can't prevent it from corroding, but we can slow it way down."

Hanks' group is made up of eight engineers, but he is the only one with ties to the Army. The interagency group also has seven engineers from the Engineering and Expeditionary Warfare Center, which is under the Navy. Hanks is stationed in

Charleston with two others (including the program manager for the entire



CP program), while four of the team members are in Port Hueneme, CA and one in Hawaii. When it is time for an inspection at one of the 350+ bases around the world, Hanks and/or others suit up and travel to the site.



“Having an Army guy in the group gives us advantages to do work with Army bases,” said Hanks. “The Army has choices in who they want to do the work and we are able to more easily sell them the idea to bring us in as we work towards a common goal of protecting essential assets.”

Hanks has travelled to bases everywhere from Bulgaria, Romania, Japan, South Korea, Guam, Italy and Germany to bases in Hawaii, and all over the continental United States. His travels take him away for a week or two to a month, but even though he is doing work for military bases, he doesn't always have the luxury of travelling with full plans.

“When you're with a military group, you have everything planned for you and don't have to worry about the logistics as much, but with us, it might just be a couple of guys and we might end up on the back roads of Romania in a rental car and have to figure it out,” Hanks recalls. “Roads get closed, GPS doesn't work, we need currency exchanged, donkey carts are in the way and we have to figure out how to get to some remote bases.”

The military bases don't always know how to do the work that needs to be done, just that

it needs to get accomplished. Hanks and his team get an annual report from every base worldwide either done by themselves or contractors. They can't see what has happened in the past; only if the metal is corroding at the present time. If there are deficiencies in the CP systems, then they must figure out what repairs are needed to correct those deficiencies.

Hanks' team is always trying to expand their capabilities. They are getting more connected with the Corps of Engineers office in Europe and are working with the Navy Research Lab Marine Corrosion facility in Key West which handles CP for ships. This is more difficult because ships are mobile and located in very corrosive, ever-changing environments. For them, they may take an aircraft carrier from the Arctic Circle across the equator and on to the Persian Gulf. All these regions have different salinity, micro-organisms and other agents that corrode the metal in different ways, so they are trying to model their systems for better protection.

“We're always trying to get better at what we do in our field,” said Hanks. “We're such a small, tight-knit group and we don't have many people in our field to fall back on and get help from. Outside of the government, we trade knowledge with contractors to continuously learn and keep abreast of ever-changing regulations.”

No one knows where in the world Jim Hanks and his DLA team are headed next, but you can rest assured that they'll know what to do when they get there.



What our customers are saying...

By Glenn Jeffries, chief, corporate communications office

The Charleston District takes its relationships with its customers very seriously and wants to ensure delivery of a high-quality product or service every time. Our customers' trust and confidence is of utmost importance. Communication is absolutely key in achieving these goals and one tool or method the U.S. Army Corps of Engineers uses every year to identify systemic issues affecting our customers and the quality of our service is our annual customer satisfaction survey. Our military customer satisfaction survey was recently completed and thanks to the 36 customers, representing 14 different agencies, who responded, we were able to gain some great feedback. Survey results are used both to improve our processes, fix our problems and to also see what is working well.

Our customers answered a series of 33 questions ranging from their experiences with our staff, timeliness, cost, service, communication to problem solving. They scored each question on a scale of 1 (very dissatisfied) to 5 (very satisfied) based on their experience with us in the past 12 months. Please see the graphs for the results and some comments that were submitted. Written comments are particularly valuable to us.

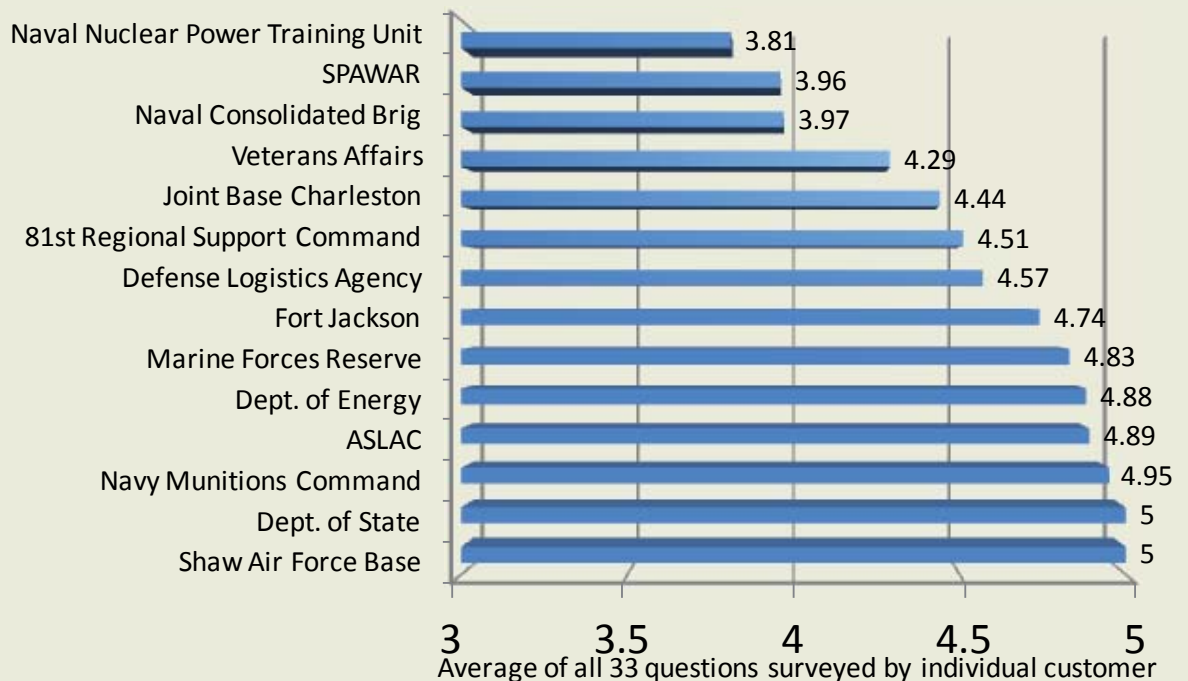
Our civil works survey kicks off on February 13th and we look forward to hearing from this group of customers as well. We consider it a privilege and honor to work with you, our valued customers. Our team of engineers, architects, biologists and other dedicated professionals look forward to bringing you even better services in the future.



"Greatly appreciate the work that the Corps has done for SPAWAR. Just wish the execution were faster. But this has been a learning process and things are definitely improving. Good Folks." -
Randy Guy, SPAWAR

"The Charleston District is a great organization at applying partnership principles. They have been very responsive to our needs and always willing to work together toward a solution... If you have an out-of-the-box problem, they are the 'go-to' district."
- **Frank Eubanks, U.S. Army Reserve, 81st Regional Support Command**

Customer Averages



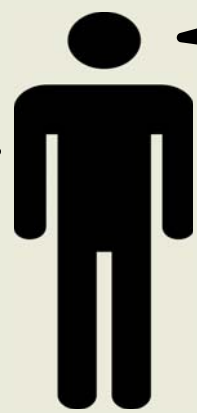
*Quotes were printed with permission from our customers

"I would state that USACE Charleston is in the top 1% of all the organizations I have had the pleasure to work with, but in this case, they set the bar for the rest of the 1%." – **Edward Maguire, Marine Corps Support**

"My experience with the program manager in Charleston was extremely positive. He was supportive, responsive and effective at every turn. Contracting support was likewise, very supportive. Would work with Corps of Engineers' in the future." – **Scott Holley, Department of Veterans Affairs**

"Management and staff are extremely responsive to requests for support and to adjust staffing mix to meet changing requirements. Proactively seeks to plan with us for the future. High quality staff doing the work. District Leadership has visited multiple times to see the work and hear customer feedback. Very cost-efficient approach to supporting federal needs." – **William Clark, Department of Energy, National Nuclear Security Agency**

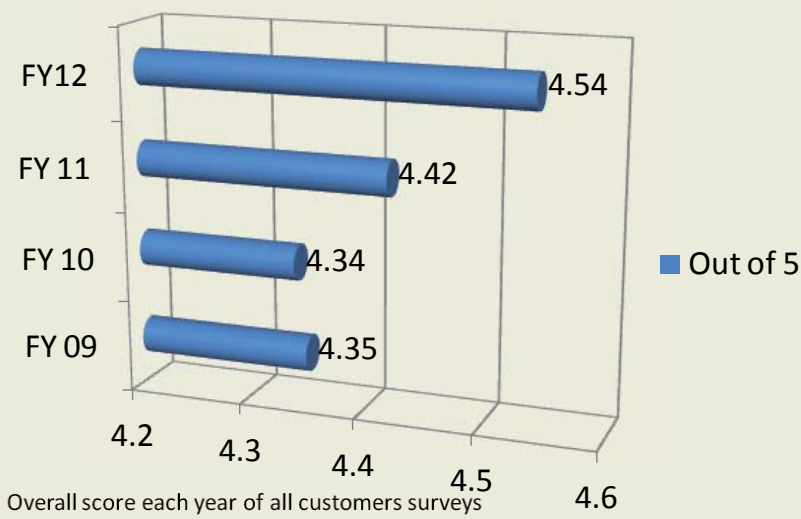
"The support we get from Charleston is exceptional. They are professional, provide a good product, and are great to interact with." – **John Bianco, Defense Logistics Agency**



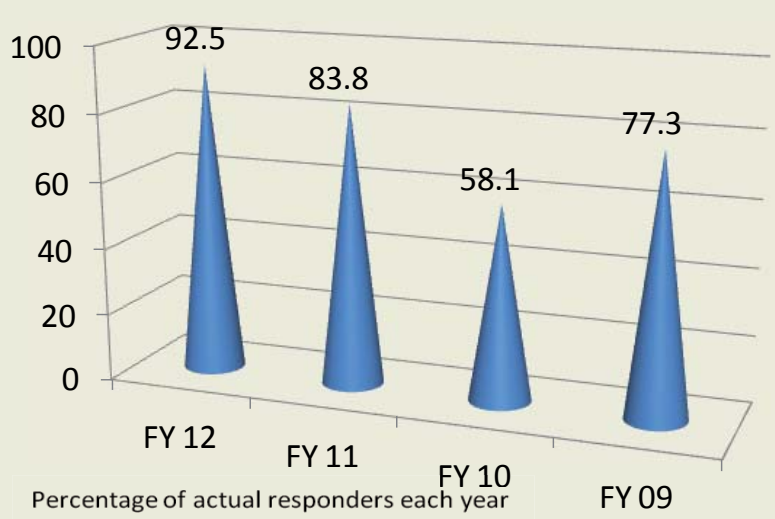
"They did a great job of supporting us in executing our FY12 program. They took on all projects and worked hard to get them all awarded. They were flexible in obtaining options to meet available funding. We were very lucky to have them as a resource to draw on. They were like an adjunct staff. Excellent team to work with!" – **William Dean, Joint Base Charleston**

"Disappointed that [project manager] could not remain on the project although his services are needed for at least three additional years. Received no options for either upgrading [his] position or making his position permanent." – **David Bender, Department of Energy**

Overall Customer Satisfaction Score



Response Rate





Kaiser Kane

Article and photos by Sara Corbett, public affairs specialist

When the fish lift at the U.S. Army Corps of Engineers, Charleston District's St. Stephen Powerhouse and Dam started experiencing hydraulic failure last spring, Brian Wells, chief, operations division, knew it was time for a thorough inspection.

"When gate one failed to open in March, we decided to de-water the fish lift for the first time in 27 years to see what work needed to be done," said Wells. "After it was de-watered, it was evident that a total renovation was going to be required as the crowder gates, the grating at the bottom of the crowder chamber and a stainless steel drain valve were completely rusted."

The District worked quickly to get the \$2 million contract awarded for the design and renovation. Lindbergh and Associates was awarded the contract for design work and Kaiser Kane, Inc. was awarded oversight of the construction. The renovation started in July 2012 and will be completed just in time for the fish migration season in February 2013.

Some of the major renovations completed included replacing the grating on the bottom of the crowder chamber, the entire hydraulic system, a new HVAC system in the hydraulic room, and three vertical bulkheads. Additionally, new safety features were installed and an updated annual maintenance plan was developed for the facility. The most challenging replacements because of their size were two 25 feet, 8,000 pound gates and a 30 inch stainless steel drain valve that was custom fabricated. All of these replacements will ensure that the fish lift is running efficiently and passing fish as it should for many years to come.

Passing the fish is not only important to the spawning process, but also provides an ocean nutrient food source for freshwater fish such as the Landlocked Stripe Bass, which attracts anglers come from all over to fish at Lakes Moultrie and Marion. The fishing industry has a big impact on the South Carolina economy; in 2011 freshwater fishing brought approximately \$1.8 billion to the state.

These renovations to the fish lift are crucial to the survival of the approximately 600,000 anadromous fish that the St. Stephen fish lift passes every year from February 1st to May 1st. The fish anxiously wait for the facility to open where they swim into the crowder area and are coaxed into the lift chamber by the crowder gates. From there the lift floods with water from the reservoir above and a large basket lifts the fish up 70 feet to the reservoir level. The fish are prompted to swim up and out of the lift through the fish viewing passage and they exit through the lakes systems where they travel upstream to spawn. SCDNR biologists have cameras mounted in the viewing windows and underwater in the passage chamber, so fish can be identified and counted. This information allows biologists to estimate population sizes of the various species of migrating fish.

"Another aspect of the renovation is the visitor's experience. Thousands of visitors come to see the only fish lift in the South-eastern region and to see one of nature's true wonders – thou-

Lindbergh & Assoc

Palmetto Castle

sands of fish passing through the fish lift on their spawning migrations. The viewing room was very drab and unwelcoming. We are hopeful that the upgrades will provide a great experience for the citizens of South Carolina and other visitors, and influence the next generation of conservation-minded citizens," said Joe Moran, project manager of the St. Stephen fish lift renovation and fishery biologist.

Currently, the viewing room is cold tile and sterile walls, but after the renovation, the room will be transformed to look like a dock and lake. The floors will be replaced with a vinyl composition tile that looks like a wooden plank to mimic a dock, rough-cut cypress wainscoting will be added to the walls to enhance the dock feeling and fish appliqués will be placed on the newly painted blue walls to give the impression of being 'crowded' into the passage chamber just like the fish. To add to the experience, a new large flat screen television will show two new videos; one is from the fish's perspective as it enters, travels and exits through the fish lift system and the other is the history of the Cooper River Rediversion Project (CRRP).

To further enhance the visitor's experience, a pavilion will be added near the South Carolina Department of Natural Resources' (SCDNR) Bayless Fish Hatchery where people can enjoy lunch or sit out on a beautiful, sunny day.

The fish lift is just a small component of the CRRP and St. Stephen Dam. The CRRP was constructed to reduce the sedimentation in the Charleston Harbor which had become an issue when the Santee River was dammed in 1941 to provide power to South Carolina residents. The Dam also caused the flow rate into the Cooper River to increase from 100 cubic feet per second (cfs) to 15,600 cfs. This resulted in the sedimentation rates from the Cooper River into Charleston Harbor to increase from 500,000 cubic yards per year (cy/yr) to 10 million cy/yr, which also increased the dredging costs. Since the Rediversion canal and the St. Stephen Dam became operational in 1985, sedimentation rates in Charleston Harbor have decreased to two million cy/yr and saves the taxpayers \$14-\$18 million per year in annual dredging costs. Since the dam also prevented migrating fish from getting to their spawning areas, the fish lift was built.

Another aspect of the CRRP is the St. Stephen Powerhouse which provides enough power to supply energy to approximately 40,000 homes in the Santee Cooper power grid. The rediversion canal brings water from Lake Moultrie through the powerhouse where it goes through one of three fixed-blade 28 kilowatts generators. The turbine is rotated by the forces of water, the turbine in turn rotates a generator, and the generator produces electrical power which is then converted and transmitted to the electrical power grid.

The fish lift, the dam and powerhouse all provide very different and important benefits to the state of South Carolina and the nation. The Charleston District looks forward to passing fish this season in the renovated fish lift. The fish lift is open to the public from March 15th- April 15th, if you would like to make a reservation to watch the fish pass, please call SCDNR at 843-825-3387.





Digging into the Haile Gold Mine project

Article by Sara Corbett, public affairs specialist

The Environmental Impact Statement (EIS) for the Haile Gold Mine, Inc. is well underway and continues to make significant progress. This past year, the U.S. Army Corps of Engineers, Charleston District's EIS project team has been collecting and evaluating data to determine the extent of impacts the project could have on the environment, including surrounding wetlands, streams, and commercial and residential wells. The District's project team includes assistance from other federal and state agencies, such as the U.S. Environmental Protection Agency and South Carolina Department of Health and Environmental Control as well as other agencies with expertise in mining, water quality, cultural resources, and wildlife.

"It is a methodical process because every aspect of the project has to be considered with regard to environmental effects, which includes use of ground water modeling," said Dr. Richard Darden, project manager, U.S. Army Corps of Engineers.

Hydrology modeling, or ground water modeling, consists of installing wells into the ground to determine the depth of the ground water, the direction and rate of subsurface flow, and the characteristics of the underlying rock formation that influence ground water movement. To collect all of this information, water is pumped from test wells while monitoring surrounding water levels in other area observation wells.

Once this information has been collected, computer software is used to mimic the ground water movements to predict the effects of lowering ground water levels during the excavation of proposed mining pits. This gives the EIS team a better understanding of the nature and extent of impacts the gold mine could have not just on the wetlands and streams on the property, but also the impact it could have on surrounding areas.

"One of the biggest concerns we are hearing from nearby residents is whether the water quality will be affected by Palmetto Castle

this project. Hydrology modeling will help give us the answers we need to address this concern," said Darden.

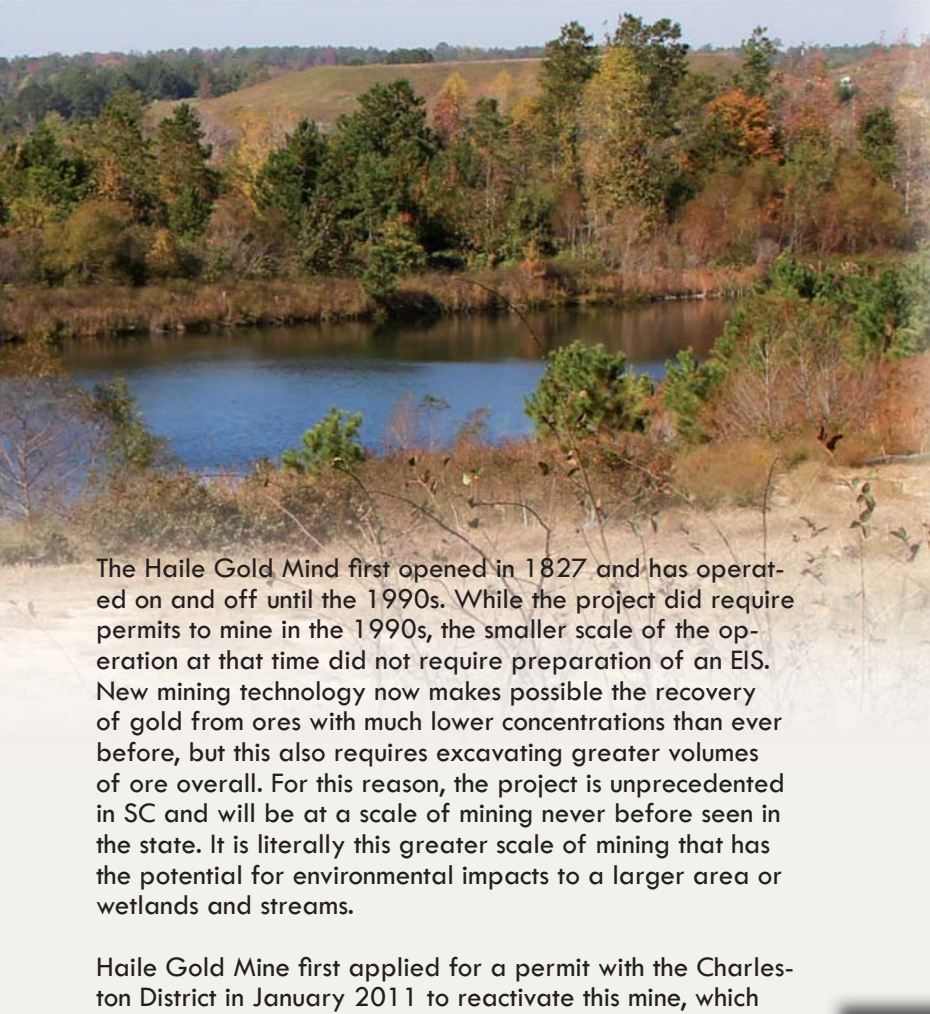
The National Historic Preservation Act requires federal agencies to identify and evaluate cultural resources at proposed project sites so the agency can make a determination of any effect the project may have on these resources. The Charleston District has been working closely with the South Carolina State Historic Preservation Office (SHPO) to ensure that all cultural resources have been identified and evaluated for this project.

"There is a historic school house on the property and several archaeological sites in the area. We are working with SHPO and the applicant toward a memorandum of agreement which provides guidance on how to manage the cultural resources in the area, including what to do should a new unidentified cultural resource be uncovered during any work that may be permitted," said Darden.

The Haile Gold Mine, Inc. project initially proposed to reopen and expand the area of open pit mining and to construct associated production facilities. The original design proposed excavating and filling approximately 39,000 linear feet of streams and approximately 160 acres of wetlands. However, this past fall, a revised project was submitted, which would reduce the proposed direct impacts to approximately 29,000 linear feet of streams and approximately 120 acres of wetlands.

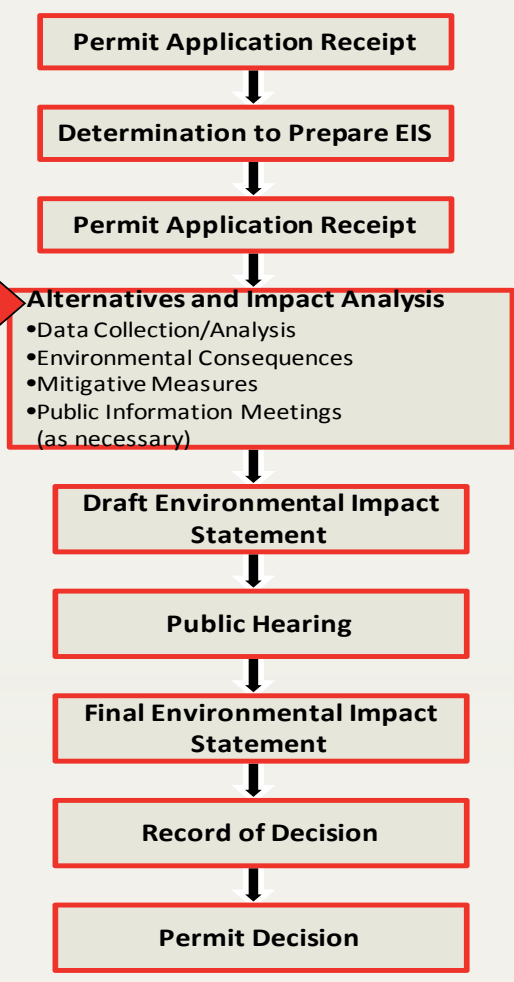
According to Darden, "the Regulatory Division's main function is to protect the nation's water and the process put in place supports minimizing and avoiding impacts to water as much as possible. We encouraged and worked with Haile Gold Mine to reduce the impacts their project would have on the wetlands and streams. It is exciting to see the Corps' process work, helping the applicant achieve the project purpose while also maximizing protection through design revisions. To achieve impact reductions this meaningful reinforces the importance of our process."

The applicant was able to do this through property acquisition allowing them to reconfigure the processing facility and shift the locations of the soil stock pile areas. Since these revisions represent substantial change to the project design and proposed impacts, a new public notice will be issued in early February to describe the revisions.



The EIS Process

We are here



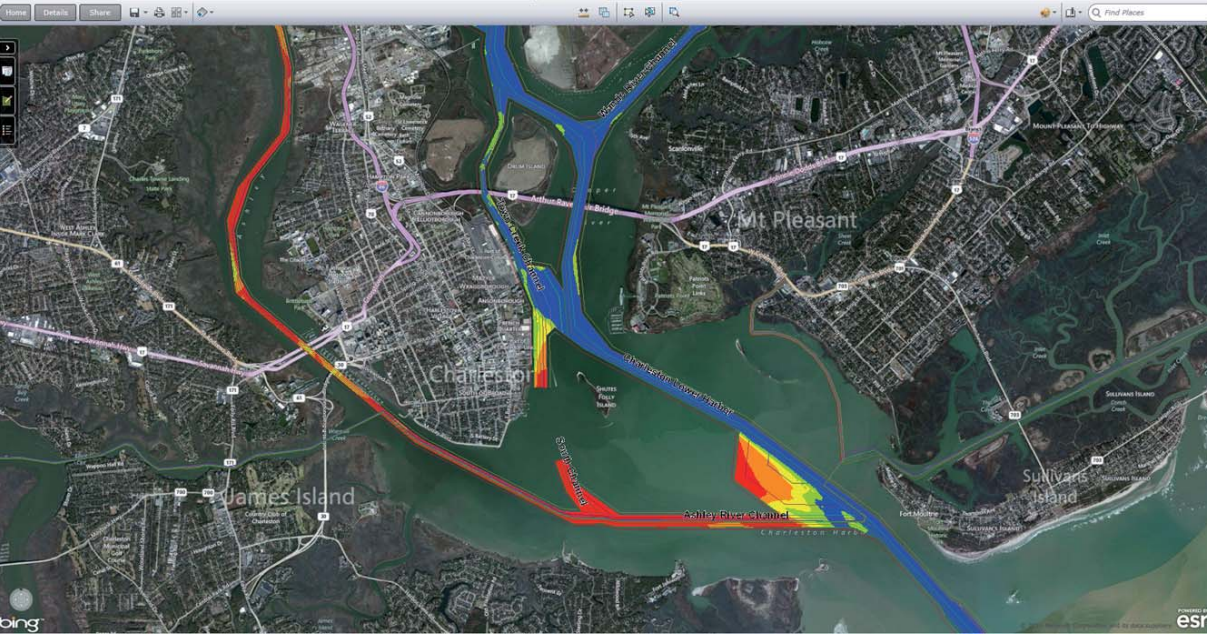
The Haile Gold Mine first opened in 1827 and has operated on and off until the 1990s. While the project did require permits to mine in the 1990s, the smaller scale of the operation at that time did not require preparation of an EIS. New mining technology now makes possible the recovery of gold from ores with much lower concentrations than ever before, but this also requires excavating greater volumes of ore overall. For this reason, the project is unprecedented in SC and will be at a scale of mining never before seen in the state. It is literally this greater scale of mining that has the potential for environmental impacts to a larger area or wetlands and streams.

Haile Gold Mine first applied for a permit with the Charleston District in January 2011 to reactivate this mine, which would include opening new mine pits and building new ore storage and processing facilities.

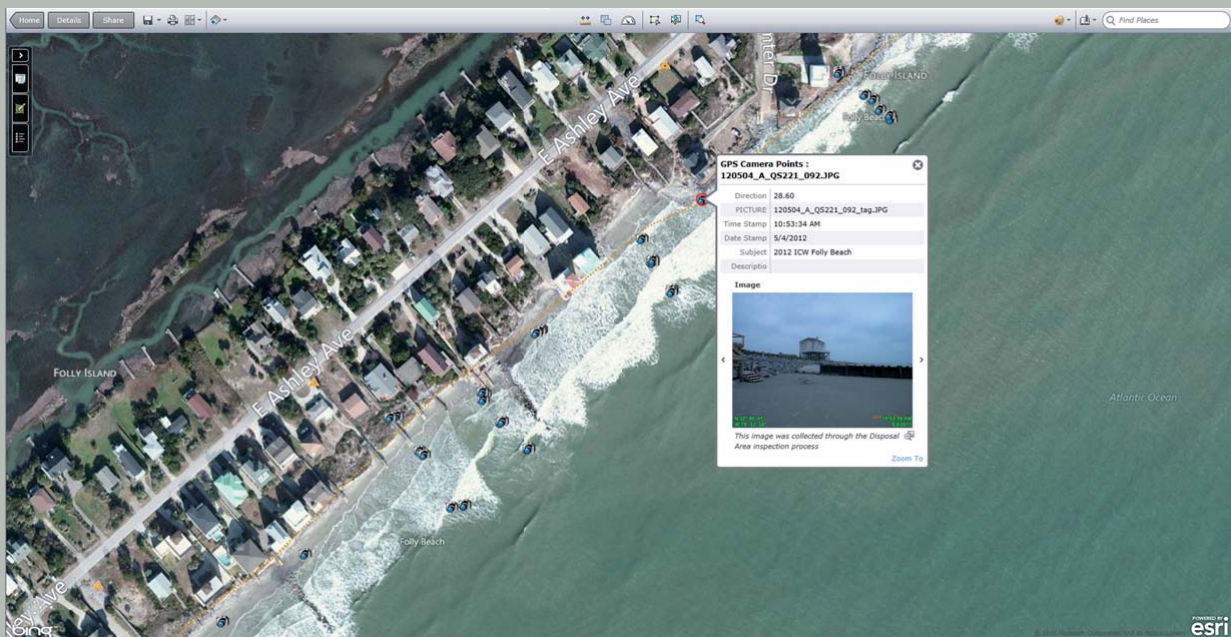
The Corps' determination of whether or not to issue a permit involves a public interest review which balances the favorable and detrimental impacts and reflects concerns for both the protection and use of important resources.

For more information or updates on the project, please visit <http://www.hailegoldmineeis.com/>.





Evolving to Inform



Resource Center Show: Web Content Only Help Sign In

**US Army Corps of Engineers
Charleston District**

HOME GALLERY MAPPING GROUPS MY CONTENT Find maps, applications and more...

Build a Map
Explore Created Maps

USACE Groups
Need Help?

Make a Map »
Create a map that can be viewed in a browser, desktop or mobile device. Share it on a blog, via email, or embed it in a website.

CESAC - Geospatial Services Center

The U.S. Army Corps of Engineers, Charleston District's Geospatial Center produces practicable and innovative Geographic Information Systems (GIS) products and services to our customers. The Geospatial Center is composed of professional GIS System Administrators, Image and Remote Sensing Analysts, Hydrographers, Spatial Asset Management Administrators and Spatial Model Builders. The Geospatial Center's core values are to focus on the customers by building partnerships and producing quality results. The Geospatial Center works with various USACE districts, federal and state agencies, and the public to produce Enterprise GIS products linking data to real-world needs.

CESAC's Geospatial Services Center manages spatial data and GIS for the US Army Corps of Engineers, Charleston District.

Home | Gallery | Mapping | ArcGIS Resource Center | Contact Us

Subscribe to our Geo RSS feed to receive updates for newly created maps
 Request a User Account
 Start ArcGIS Explorer Online
 Use this rich application for transforming your data into beautiful maps and presentations that tell powerful stories.
 Start ArcGIS Explorer Online
 Create Map With Portal Viewer

Keep the Public Informed With Apps



Article and photos by Sean McBride, public affairs specialist

The past five years have produced tremendous advancements in the world of mobile technology, and the next five are sure to do the same as smartphones and tablets continue to grow in what they can do. To remain proactive and meet consumer demand for information, the Charleston District's Geographical Information Systems (GIS) branch has upgraded the District's maps and data to be displayed on the go and made them into interactive, online viewings with the help of the Environmental Systems Research Institute (ESRI), Inc. ESRI's Portal for ArcGIS software has web tools that translate a variety of Charleston District data formats and then display it on live maps using changeable base-maps and background imagery.

"We're using publicly accessible software instead of spending money to make our own custom, in-house software," said Caleb Brewer, GIS analyst. "ESRI already has a host of capabilities for us to take advantage of, which saves us valuable federal tax dollars."

The success of this program has two parts: building publicly accessible GIS web services at the Charleston District HQ and using ESRI's Portal for ArcGIS to create a website, <http://w3.sac.usace.army.mil> that will provide the capability to create and publish maps and applications on demand. This ensures the District can control the data and empower our user community with online, easy-to-use web maps. This website will host hydrographic condition maps and depth charts of Charleston Harbor and the Atlantic Intracoastal Waterway, maps of projects, inspections of completed works, and any Charleston District data that is publicly accessible.

The information will also be available on Apple and Android apps for smartphones and tablets. By downloading the free ESRI ArcGIS app, users can check channel condi-

tions and depths while in their boats on the water. Users can search for their location and use the GPS locator to find exactly where they are and what the conditions are like around them. They can also see where dredges are operating. This will help ships entering the harbor that might need to radio ahead to have the dredges move their pipelines.

The other exciting part of the website and app is the ability for customers to be able to see conditions of projects after the District completes an Inspection of Completed Works, which is the final phase of a project. This capability of the software currently only exists for the District's Folly Beach and Myrtle Beach projects but allows users to zoom in on the project and click small camera icons that will show actual photos with metadata taken by the District's project managers when they have completed inspections of the area.

"This technology provides the public and our customers a way to access our data through more technologically advanced ways," added Brewer. "We're showing the data in the most efficient manner and making it easily accessible, which can cut back on Freedom of Information Act requests and save time and money."

By evolving with the times, the Charleston District is efficiently managing resources while keeping customers and the public informed about everything being done around South Carolina. Check out the website and app and share your feedback with us at CESAC-GIS@usace.army.mil.

Use this website, <http://www.esri.com/software/arcgis/smartphones>, to download the latest ESRI ArcGIS app for apple and android tablet or smartphone.

Meet our...

Bret Walters
Chief, Planning and Environmental Branch
Bret.L.Walters@usace.army.mil



What is your position?

Chief, Planning and Environmental Branch: The Planning and Environmental Branch provides the Charleston District expertise related to plan formulation and policy compliance, environmental planning and compliance, cultural and historic resource related issues, economic analysis, and public participation in the scoping and decision making processes. The branch also provides a wide range of other customized environmental-related services to many other District customers.

Describe your job.

I lead a diverse team of scientists, engineers, an economist and a project management assistant. This team is tasked with finding ways to solve problems, comparing various alternatives, and recommending the solutions to problems that strike the best balance of economic and environmental benefits and costs. My job is to foster the conditions that will help each of them succeed individually and ensure that the team works collaboratively to meet the needs and expectations of the District as well as its customers and partners.

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

The most unique thing I bring to SAC is my broad-range of experience. Before beginning my career with the Corps in 1994, I taught high school chemistry, physics and math for two years in Minnesota. From 1994 to 2010, I worked for the Alaska District as a chemist, industrial hygienist, biologist and planner on many navigation, coastal erosion, storm damage reduction, environmental restoration, watershed management, and military construction projects. From 2010 to 2012, I worked as a Senior Planner/Regional Technical Specialist at the Memphis District on a variety of projects including multi-objective flood risk management/ecosystem restoration projects, a watershed assessment covering the lower 1,000-mile reach of the Mississippi River and a comprehensive assessment of the operation and performance of Corps' flood risk management systems during the historic 2011 Flood.

What is the most rewarding part of your job?

The most rewarding part of my job is seeing projects that improve the quality of life for the American people being constructed and generating the economic, life safety, environmental and standard of living benefits we predict.

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

As Chief of the Planning and Environmental Branch, I hope to help SAC find new and innovative ways to serve the interests of the federal taxpayers while improving the quality of life for the people living in South Carolina and the region. I am fortunate to have this opportunity at a time when SAC has the Post 45 project on the leading edge of the Corps' efforts to modernize its planning process. I hope to capitalize on this opportunity to enhance the future capabilities of the branch and the District.

Kandahar, Afghanistan: William Davis' Daily Life in the Combat Zone

By Narissia Skinner, family readiness coordinator

This is the second article in a series that will feature the duties of different deployees and the job they do to serve two nations while deployed in support of Overseas Contingency Operations.

What do U.S. Army civilians who work for the U.S. Army Corps of Engineers in New York City, Baltimore, Fort Jackson, Norfolk, Philadelphia, San Francisco, Los Angeles, Seattle, Tulsa, Pittsburgh, El Paso, Savannah, Wiesbaden Germany, Charleston and Vicksburg all have in common? This past fall, this group of 15 landed at the Kandahar Air Field as volunteers for a one year deployment. This diverse group of highly qualified civilians will serve alongside the military personnel assigned to this base in Afghanistan performing an incredible service to our nation. These volunteers have had plenty of time to get acquainted with one another and become friends because the trip to Kandahar is a long one, taking five days including a stop in Dubai.

William Davis, an administrative support specialist for the Charleston District, is one of these volunteers. He is stationed at Forward Operation Base (FOB) Lindsey, which is named after Nathaniel Lindsey, a young soldier who was a casualty of war. The FOB is very small and is about 15 minutes from the main airfield. Davis' work schedule is a bit different from that in the states; in Kandahar he works 10 hour days, Sunday through Thursday. Working for two resident engineers, he is responsible for preparing time and attendance records for 15 personnel, assembling all travel packets for those lucky enough to be headed to some well deserved R&R, preparing end of tour travel packets, facilities management of both office and living quarters, billeting for visitors to the compound, issuance of supplies, audits of all IT equipment, supervision of the cleaning staff, who come three days a week, and fire warden, just to name a few! He and the others stationed there often work on their days off as well.

When the long day is over, he and his new found friends head over to the dining facility for dinner to talk about their

day and all they have accomplished. Some will then go to the gym for a workout afterwards but one of Davis' favorite after dinner activities is going to check for mail from home. He likes to end his by returning to his quarters (hopefully with letters in hand) for an evening of French lessons, writing, reading a good book or watching a movie. Checking on his family in the states through Skype and email completes his evening. Of course, one cannot forget to do the things our parents taught us as kids- "WASH BEHIND YOUR EARS AND BRUSH YOUR TEETH" before going to bed.

Thursday evenings are special because it is movie night in Kandahar. A variety of films are shown up on the big projection screen, popcorn is served and then it's time to settle back and enjoy the show. After the movie, often the group will play a game of Spades or some other card game. This more relaxed camaraderie allows their friendships to grow.

Because the water content is very harsh and non-potable in all of the facilities on the compound, Davis must use bottled water for everything: making tea and coffee, brushing his teeth, washing dishes and cooking and baking. The water is free and can be found all over the compound, but it does make life a little more difficult than turning on the faucet like we do in the states.

Overall, it is just an ordinary day, as it would be at any post anywhere in the world where our servicemen and civilians are protecting our freedoms. It takes a special type of individual to volunteer for this selfless service. These civilians are putting themselves in harm's way and leaving their families behind in order to help facilitate construction of critical infrastructure and public facilities in Afghanistan. The Charleston District is proud of its employees who continue to volunteer in support of Overseas Contingency Operations.

ESSAYONS!!



Going to Southeastern Wildlife Expo?

The Corps' Regulatory & Post 45 Team will be there!

Please stop by and visit both booths

**Conservation Tent, Marion Square
February 15th-17th
9:00 am - 6:00 pm**

Hope to see you there!



US Army Corps of Engineers, Charleston District

Palmetto Castle

Palmetto Happenings

Keeping up with a Holiday Tradition

By Sara Corbett, public affairs specialist

Every year the Charleston District looks forward to donating toys to children-in-need in the Lowcountry area through the U.S. Marine Corp Reserve's Toys for Tots campaign. This year was no exception; on December 20th, the District donated more than 100 toys to the program on live television with Channel 2's chief meteorologist, Rob Fowler.

"There were a wide range of toys donated from cuddly stuffed animals and basketballs to board games and even a bike. I am very proud of the Charleston District for coming together and helping the community" said Maj. John O'Brien, district deputy commander.

The campaign helped to ensure that approximately 10,000 Lowcountry children received a toy on Christmas morning.



Hosting SPAWAR's Future Leaders

By Glenn Jeffries, chief, corporate communications office

In January, the District was pleased to host 20 members of SPAWAR's New Professional Program. This group is made up of recent college and post college graduates and is designed to bridge the gap between formal academic training and professional work. Being mostly engineers, scientists and computer scientists in this group, made it easy for them to relate to the Corps' engineer role.

Lt. Col. Ed Chamberlayne discussed the Corps' missions as well as the District's high visibility project, the Charleston Harbor Post 45 Deepening Feasibility study. The group had many questions about the complex engineering, environmental, and economic aspects of this project. After the discussion, they were treated to a tour of the S.V. Evans to learn about its role in this project as well its many contributions to helping maintain the harbor on a regular basis.

"Helping one of our customers with the career development of its future leaders was our pleasure," said Chamberlayne. "I hope the group was able to learn more about the District's missions, so should the District and SPAWAR work together in the future an understanding of each agency and its role in serving the nation would already be established."



Stretching the Dollar for CFC

By Glenn Jeffries, chief, corporate communications office

The Charleston District concluded another successful Combined Federal Campaign (CFC) year in November. For the third year in a row, the District surpassed its goal. This year, generous employees donated more than \$35,000.

“Every year I am amazed at the large impact our small group of employees can have on this community” said Lt. Col. Ed Chamberlayne, U.S. Army Corps of Engineers, Charleston District, Commander. “I am very proud of the Charleston District employees’ kindness in these uncertain fiscal times. Their selfless spirit will help many in need this year.”

The Charleston District would like to thank Mark Durham, loaned executive to CFC from SPAWAR, who helped us kick off the campaign at a town hall meeting by bringing guests from Water Missions International, Inc., a non-profit organization that benefits from CFC, to speak about providing long-lasting safe water and sanitary solutions through water purification systems and education to people in developing countries and disaster areas. Brittany Fogel and Pat Haughney, also brought a water purification system that they send to these undeveloped communities to help get the District excited about helping others less fortunate than us.

Great job, Charleston District!



Building Future Engineers

By Glenn Jeffries, chief, corporate communications office

Individuals with science, technology, engineering and math (STEM) backgrounds help innovate and create our future capabilities that keep our nation competitive and support our national defense. Increasing the number of STEM college graduates by 35 percent to meet the growing demands of our nation is a challenge we are facing. From 2010 -2020 it is predicted that STEM jobs will grow at a rate of 17 percent. Currently, China graduates 700,000 engineers from college each year while the United States is only graduating 70,000.

Inspiring students and igniting a passion to pursue a career in STEM has never been more important. The Charleston District recently partnered with a group of Burke High School students who are involved in the Architecture, Construction, Engineering program their school offers.

Brandan Scully, navigation branch chief, and Jeremy Johnson, navigation civil engineer, spent the afternoon working with this group using hands-on projects that taught valuable lessons in contour mapping exercises, terrain modeling and civil engineering technologies. A presentation on different engineering applications to include an overview of the Corps’ role in dredging and the engineering aspects the District is currently studying for our Charleston Harbor Post 45 Deepening project rounded out the afternoon.

This District is proud to be involved in programs such as this which are successfully getting students interested in these fields.





US Army Corps of Engineers

Charleston District

BUILDING STRONG®

Corporate Communications Office
Charleston District
U. S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403



TIDBITS



Since many of the services the Charleston District provides affect the everyday life of the citizens of SC, our U.S. Congressman and U.S. Senators that represent SC are often called upon to answer questions about the Corps' processes from their constituents. In an effort to keep the delegation and their staffers informed, the District meets with them regularly to ensure they are up-to-date on projects, permitting actions, emergency management initiatives and the other services that the District provides. Pictured is Lt. Col. Ed Chamberlayne with U.S. Rep. Tom Rice of SC's newly created SC 7th Congressional District.