US Army Corps of Engineers

TOWER TIMES

Rock Island District's News Magazine

October/November 2015

District's $150 Million Project at Lockport Nearing Completion

US Army Corps of Engineers ®
Rock Island District

TOWER TIMES

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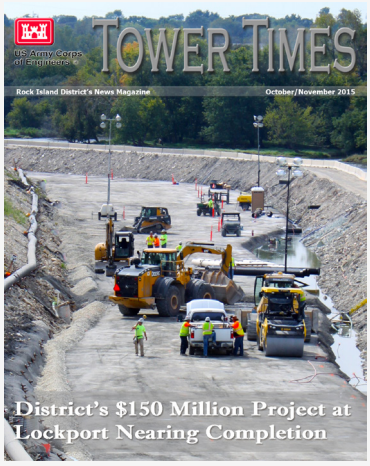
On the Cover



At Lockport Lock and Dam in Lockport, Illinois, contractors are working around the clock to build a 1,500-foot roller-compacted concrete wall as part of the final stage of Lockport's multi-year major rehabilitation project.
Photo by Samantha Heilig

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A message from....

Colonel Craig Baumgartner, District Commander

Keep Safety in Mind While Preparing for the Change of Seasons

October marked the beginning of a new fiscal year for the Rock Island District as we prepare to execute the upcoming annual budget. This month also rings in the changing of the seasons which in the Midwest means all new weather-related safety concerns.

Recently our chief of safety, Troy Larson, sent out an email highlighting safety concerns from FY15. The District had a significant increase in work-related injuries in FY15, something that has my attention and my focus. Supervisors and employees should be doing everything in their power to mitigate risk and ensure our teammates are operating safely no matter the situation. A safe work environment is of utmost importance to me and I have no leniency when it comes to preventable injuries.

As we endeavor to eliminate work-related safety hazards we must also concern ourselves with our behaviors that could lead to injury when we are not at our worksite. At this time of year, as the weather changes, I want everyone to consider and plan the way they go about dealing with the potential hazards that fall and winter weather can bring.

Most safety concerns, whether on or off the worksite, can be alleviated with a good plan. We can mitigate risks with forward thinking.

Probably the biggest risk most of us encounter in our daily lives occurs when we get behind the wheel of our vehicles. People in the Quad Cities and throughout the Midwest are seasoned veterans when it comes to traversing through the obstacles of winter driving. But complacency is the enemy. All the experience in the world is of no value if there is no plan to accompany that experience.

A plan regarding driving safety can be as simple as giving yourself extra time due to the elements. Rushing to work or another event when driving conditions are hazardous increases your risk exponentially. It is also prudent to have survival items packed in your vehicle in the case you become stranded. Those items could include blankets, extra cash, road flares, non-perishable food and extra clothing.

It should also be noted that winter weather is not the only concern. Fall presents hazards that may go overlooked. Leaves on roadways might become slick, especially after rain so be particularly cautious when driving and braking on leaf-covered roads. You might also face frost or dew on the vehicle and roadways on fall mornings, causing limited sight and slick roads. Be sure your vehicle is clean of anything that could inhibit your ability to see before hitting the road.

Safety behind the wheel might be the primary concern as the weather changes but there are many other activities that can present challenges. Many of us will be preparing our homes for the winter months. Gutters may need cleaning and furnaces will be fired up; so much of what we do around our homes can be dangerous. Be mindful of falling hazards when engaged in something like gutter cleaning and ensure you are not taking unnecessary risks as they may relate to anything involving gas or electric within your home. Being aware of the hazards is the key to safely prepare your home for the winter months.

Awareness is the key but that doesn't mean time away from work shouldn't be enjoyed. Plenty of you will engage in outdoor activities like skiing, snowmobiling and other recreational opportunities. Your time from work should be enjoyed. My only concern is that your enjoyment is conducted safely. Enjoying what winter weather recreation has to offer can be integral to our morale and well being. Just have a plan and be safety conscious.

Risk can't be completely eliminated. Accidents will happen on the job and outside of work. With a good plan and safety-conscious thinking, we can prevent avoidable injury or worse. Having that safety-conscious mindset on the job is critical to everything we do at the Rock Island District. But if that mindset doesn't transfer over into our personal lives, accidents are bound to happen which is really no different than a work-related injury. No matter the situation, your safety is my priority. I encourage you to keep safety in mind at all times. We need all of our teammates healthy and happy to accomplish our nationally significant missions. Thank you for all you do and CONTINUE BUILDING STRONG.

Have a work-related comment or a question for the Commander? Submit them anonymously to the Deputy Commander via the online link on the District's intranet page or click HERE to be linked directly to the form.

10 Years After Hurricane Katrina, District Employees Recollect Rock Island New Orleans Support - RINOS

By Allen Marshall, Public Affairs Specialist

The West Closure Complex in New Orleans, Louisiana, was one of four projects assigned to the Rock Island District New Orleans Support team. It is the largest pump station of its kind in the world. *Rock Island District photo*

The city of New Orleans recently commemorated the 10th Anniversary of Hurricane Katrina, a devastating storm that ravaged the Gulf Coast with the costliest natural disaster, as well as one of the five deadliest hurricanes, in the history of the U.S.

The storm took thousands of lives and destroyed billions of dollars of property and infrastructure. In the aftermath, the entire country came out in support of those affected on the Gulf Coast and the United States government decided something must be done to prevent a similar tragedy in the future. The U.S. Army Corps of Engineers would play a huge role in helping to engineer one of the world's largest civil works construction projects that would come to be named the Hurricane and Storm Damage Risk Reduction System (HSDRRS) for the Greater New Orleans area.

With the full backing of the U.S. Congress, a multitude of federal, state and local agencies went to work building a system that would provide 100-year storm damage risk reduction around the entire city of New Orleans. Since the Corps had a District office in New Orleans, much of the Corps' work would be headed by that District and the Mississippi Valley Division (MVD). But the endeavor would prove to be one that would need a lot of manpower and expertise. It became imperative that other Districts assist, one of which was the Rock Island District.

"In 2008, senior leaders with the Corps recognized that the goal of finishing the Hurricane and Storm Damage Risk Reduction System by June 2011 was not going to happen," said Denny Lundberg who was Rock Island District's Chief of Engineering at the time. "It was noted by our commanding general, Maj. Gen. Michael Walsh, that 'we are on a burning platform and failure is not an option.'"

Lundberg said the Division recognized the shortage of resources and the need to engage the region in executing the program. The Division had already created a Hurricane Protection Office (HPO) and Protection and Restoration Office (PRO) in New Orleans. Each District within MVD was then assigned to support the HPO or PRO.

The Rock Island District was selected to support the PRO for the New Orleans District and was assigned four projects: the West Closure Complex, the Western Tie-in, Eastern Tie-in and the Algiers and Harvey Canal levee improvements, totalling more than $1.3 billion of work. The large workload required a different approach that would allow the staff assigned to these projects to be solely focused on the HSDRRS mission.

"I proposed a separate, designated office," Lundberg said. "A separate branch within engineering that could work solely on HSDRRS. I believed the office needed to be located out of the District headquarters complex to eliminate distractions that may come up due to Rock Island District workload."

Leadership agreed with Lundberg's proposal and in December 2008, the Rock Island New Orleans Support Office (RINOS) officially opened its doors on the Rock Island Arsenal in building 68. This office, outside of the District's headquarters at the Clock Tower complex, began with a few engineers and planners but within short order more than 50 people were working at the RINOS office. The extended team of regional assets and contractors eventually grew to more than 300.

Lundberg selected Barb Lester, who is currently the District's Chief of Construction Branch, to head up the original team. She remembers the experience fondly.

"Leading the RINOS Engineering effort was the most dynamic, rewarding and enjoyable assignment of my career," Lester said. "Working with such a motivated and talented team of Corps staff, AEs, and contractors made impossible goals achievable. It was an honor to have such an opportunity to positively serve USACE and the nation."

With the RINOS office up and running, Lundberg said his role from a management perspective became increasingly difficult. He was essentially wearing two hats, one at the Rock Island District office and the other with his management of tasks related to RINOS. Lundberg said nearly 80 percent of his time was dedicated to RINOS which meant he needed to rely heavily on his team.

"Our chore was to get all of our projects within the system designed, under contract and constructed by the June 2011 deadline," Lundberg said. "That was a very short time line which meant all HSDRRS projects had to be intensively managed. In addition to the HSDRRS workload, the District was coming off the flood of 2008 and the start of the Stimulus Program which brought unprecedented workload to the District. I relied heavily on the branch chiefs to oversee engineering and construction in Rock Island. It was a team effort across the board."

Of those projects assigned to RINOS, the West Closure Complex was the one that presented the biggest challenge, according to Lundberg. This project required the assignment of District personnel that would deploy to New Orleans to oversee the design and provide engineering support during construction. Bob Hoffman was assigned as project engineer and spent over two years in New Orleans on this effort. The now finished West Closure Complex is the largest pump station of its kind in the world and is a critical component of the HSDRRS.

Matt Coffelt, who now works within the Rock Island District's Program Management Branch, was relatively new to the Corps when he was assigned to RINOS. For nearly four years, Coffelt worked with the RINOS team and his primary focus was the West Closure Complex. He said his experience while with RINOS helped him to prepare for more responsibility within the Rock Island District.

"With the West Closure Complex, I was involved in resolving some very technically complex issues, definitely far more complex than anything I had experienced previously in my career and probably more complex than anything I will ever experience again," Coffelt said. "I believe that my overall experience in RINOS and working on the West Closure Complex lead to a tremendous amount of growth for me, both professionally and personally."

Looking back, Lundberg described the RINOS efforts as a perfect example of what the Corps can do when it is given the resources it needs to get the job done. Projects performed as part of the HSDRRS were fully funded – upfront. That is often not the case with Corps projects as the norm can be to have incremental funding over an extended period of time.

In late August 2015, much of the country returned its focus to the Greater New Orleans area as those communities commemorated the 10th Anniversary of Hurricane Katrina. The Corps assisted in much of the commemoration, showcasing a system of storm risk reduction that spans a multitude of projects worth more than $14 billion. The delivery of the Hurricane and Storm Damage Risk Reduction System is unprecedented in our country's history and represents what can be accomplished when the nation responds. Lundberg believes Rock Island District's support in delivering the system will have long-lasting benefits.

"I always say the professional life of an engineer is not linear," Lundberg said. "You grow professionally based on the projects you work. Those engineers who worked with RINOS gained 10 or 20 years of experience in just a few years. The RINOS mission helped this District grow immeasurably."

Former RINOS Staff Members

Eddie (Benny) Anderson
Mark Anderson
Eric Aubrey
Mike Ballard
Sue Brown
Elizabeth Bruns
Bob Castro
Dean Cerny
Robert Chantome
Matthew Coffelt
Heather Cross
Joyce Duffey
Joe Dziuk
Major Eric Ekstrom
Alaena Ensey
Leo Foley
Angela Fritz
Amanda Geddes
Andrew Goodall
Kevin Hall
Juanita Heald
Aaron Heidenreich
Thomas Hodgini
Anthony Heddlesten
Josh Hendrix
Bob Hoffman
Steve Johnson
Barbara Jones
Bryan Kammer
Terri Kirkeeng
Tom Kirkeeng
Sarah Kowalczyk
Steve LeMasters
Richard Lemke
Barbara Lester
Emily Libby
Gary Loss
Ray Lukkarinen
Dan Miller
Captain James Millman
Cokey Mills
Yogi Patel
Eddie Phillips
Heather Rentz
Bill Richardson
Laura St. Louis
Heather Schroeder
Michael Scudder
Ronald Silver
Bob Simonton
Bryan Snook
Norma Steele
Matt Stewart
Michael Tarpey
Christopher Thennes
Samantha Townsend
Kent Turner
Debi VanOpdorp
Mike Veal
Cathy Weikel

The Value of Hardworking Volunteers

By Samantha Heilig, Editor

Volunteers with the Central Iowa Bowfishing Club help to provide a clean and safe environment for visitors at Lake Red Rock by cleaning up trash in the tailwater area below the dam. *Photo provided by Jeffery Vance*

Volunteers play a vital role in protecting natural resources while helping to operate and maintain recreation facilities at U.S. Army Corps of Engineers' projects all across the country. As the largest provider of water-based outdoor recreation in the nation, the Corps offers a variety of opportunities to volunteers looking to donate their time.

Although the Corps employs permanent and seasonal natural resource management staff to maintain and operate its recreation and environmental areas, budgets are tight and volunteers help accomplish work that might otherwise not be completed.

In the Rock Island District, volunteers can be found at all five District recreation projects: Coralville Lake, Lake Red Rock, Saylorville Lake, the Mississippi River and the Illinois Waterway. These volunteers work in a variety of positions providing quality outdoor public recreation experiences while continuing to manage and conserve natural resources.

"Volunteers come because they want to make a difference and are essential to the daily operations at Lake Red Rock," said Brett Call, Lake Red Rock's Operations Project Manager. "They bring with them diversity of thought and experience that lends tremendous value to our efforts to serve the public. We couldn't do the job we do without them."

Throughout the District you can see volunteers taking part in many different jobs including greeting visitors at visitor centers, collecting fees at campgrounds, laying mulch on bike trails or presenting programs to groups of school kids. Not every volunteer or group of volunteers will perform the same duties at each of the recreation projects. And not all volunteers serve the same amount of time. Some volunteers, like scout groups, offer many hours

Natural resource specialists, Lou Ann McCracken (center) and Mike McKean (right) welcomed volunteers (from left) Gene Sperry, Mike Wheeler, Lorena Murphy and Vicki Vasilis to the Mississippi River Visitor Center this year to help with facility operations. *Photo by Samantha Heilig*

of work on a single day while other individual volunteers might stay at the project for months offering support for an extended period of time.

Volunteer, Lorena Murphy, started working at the Mississippi River Visitor Center in November 2014. After leaving the parks, recreation and tourism field a few years ago for an alternative career path she turned to volunteering as a way to get back into her field of interest.
Working at the Visitor Center for the Corps has been a great way for me to get back into the type of work I would eventually like to pursue as a career, said Murphy. "I have had the opportunity to meet lots of people and gain skills that will be very valuable when it comes to later applying for permanent jobs."

Other volunteers like Mike Wheeler, Gene Sperry and Vicki Vasilis who have been working at the Mississippi River Visitor Center this past summer are not at all interested in getting back into the workforce. These retirees look at volunteering instead as a way of getting out into the community, traveling the country and a means to socialize with people who are generally having a good time on vacation.

Regardless of why volunteers offer their time and talents to help out, the value of their service can be seen in a variety of ways. In FY14 alone, the Rock Island District received support from a total of 1,059 volunteers assisting at all three reservoirs and both river projects. These volunteers not only helped the Corps by providing more than 41,000 hours of work but also saved the District a tremendous amount of money as those service hours had a value of nearly $934,000.

Because volunteers have contributed so much to the Corps' recreation and natural resource management program success, a national Volunteer Clearinghouse was created to assist people in finding new volunteer opportunities. This online Clearinghouse was created as a way for lakes and waterways looking for assistance to connect with potential volunteers by providing information about the volunteer program and directing people to specific points of contact at each lake or location of interest. Anyone looking for more information on the Corps' volunteer program and the opportunities available to potential volunteers can visit the Clearinghouse at http://www.usace.army.mil/Missions/CivilWorks/Recreation/VolunteerClearinghouse.aspx.

Volunteer, Pat Witinok, provides information to visitors at the Devonian Fossil Gorge during a busy week at Coralville Lake. *Photo by Terry Esher*

Can you name where this photo was taken?

If so, send your answer to samantha.a.heilig@usace.army.mil. People answering correctly will be entered to receive a prize and be recognized in the next Tower Times.

August/September Answer: Lock and Dam 18

Winner: Andrew Goodall

Training Tidbits

By Sara Paxson, District Training Coordinator

During FY16 the Leadership Development Program Level 2 will be revamped and a new contractor will be sought after current participants graduate in November. In lieu of this program, the District will be offering a quarterly leadership development training opportunity. More info will be forthcoming.

Did you know... a supervisor development course is required for all Army supervisors and must be taken within 12 months of being appointed to a supervisory position. After initial course completion, a refresher course must be taken every three years. To register for a course please visit the District's Training SharePoint site at: https://team.usace.army.mil/sites/MVR/trng/SitePages/mandatory_trng.aspx.

Lockport Major Rehabilitation Project Reaching Final Stages of Construction

By Samantha Heilig, Editor

For more than a decade, members of the Rock Island District have been working to design and implement one of the largest civil works projects ever completed in the District. The project, known as the Lockport Lock and Dam Upper Pool Project, is a multi-stage, multi-year and multi-million dollar rehabilitation effort that is now in its final stages and is nearing completion.

The Lockport Lock and Dam is a unique facility, designed and constructed by the state of Illinois, as part of the Chicago Sanitary and Ship Canal (CSSC). It includes a number of structures including a lock, operated by the Corps; a powerhouse operated by the Metropolitan Water Reclamation District of Greater Chicago (MWRD); controlling works that regulate the water level in the CSSC; and an approach dike and guide walls that surround the elevated Lockport pool.

According to Michael Tarpey, project manager for the Lockport Upper Pool Project, a memorandum of agreement signed in 1984 between the U.S. Army Corps of Engineers and the MWRD transferred primary maintenance responsibilities of the structures that create the Lockport pool, to the Rock Island District. These structures, which hold the canal pool at a level roughly 40 feet above the surrounding communities, have served their purpose for more than 100 years, but reliability and safety concerns in the late 1990s and early 2000s prompted the Corps to begin investigating needed repairs.

Water seeping through the embankment of the forebay wall at Lockport Lock and Dam was just one of many concerns leading to the facility receiving a Dam Safety Classification rating of two during a major inspection in 2005. *Photo by Samantha Heilig*

In 2004, a major Rehabilitation Evaluation Report (RER) was completed by the District to examine the condition of the Lockport facility. An RER is an evaluation of the present condition, past construction history and problems, present and future reliability, alternative solutions, and investment strategies for a needed project. The Lockport RER identified four major areas of concern: the approach dike, concrete guide wall, controlling works, and powerhouse and dam.

In 2005 a group of senior engineers from across the Corps conducted additional inspections of Lockport as part of a large investigation of lock and dam facilities around the country. During this inspection, a Dam Safety Action Classification (DSAC) rating of two out of five was given for the Lockport facility. According to Tarpey, this low DSAC rating meant the facility was identified as being highly urgent. Dams with a DSAC rating of two could fail during normal operations or a failure could be initiated as the consequence of an event. The rating also meant the likelihood of failure from one of these occurrences, prior to remediation, was too high to assure public safety or that the combination of life or economic consequences with probability of failure was very high.

"The DSAC rating was a significant factor in this project receiving funding," said Tarpey.

With the level two DSAC rating in place and funding allocated to continue work on the project, the District began moving forward on developing ways to improve the safety and stability of the Lockport structures. A large-scale project consisting of five stages was created and since that time, four of the five stages have been completed.

Stage 1, which involved constructing a 4,300-foot cut-off wall within the embankment of the approach dike that leads to the powerhouse and Stage 4, which stabilized the powerhouse structure and cleared overgrown embankments were completed in FY09. Stage 2, which included repairing concrete bulkheads and replacing brick, limestone and granite facades in the controlling works and Stage 3, which consisted of constructing two miles of precast concrete panel wall to replace the original walls of the canal were both completed in FY12.

The fifth stage, known as Stage 1-C is the last and final step in the project. This stage, currently underway, includes construction of a new forebay wall behind the existing wall and is scheduled for completion in early FY17.

"It was extremely important that the final product for the Lockport Lock and Dam Upper Pool Project would address the safety issues and mitigate the risks identified in 2005 that led to the DSAC two rating," said Josh Cackley, Dam Safety Program Manager for the Rock Island District. "Upon completion, the objectives will be met and the surrounding communities will have a more reliable and safer CSSC."

The major concern with the final stage of the Lockport rehabilitation project was the integrity of the forebay wall leading up to the Lockport powerhouse. The wall, which is made of both concrete and earth, is approximately 40 feet high and separates the water in the CSSC from the water in the Des Plaines River.

"For years, the Corps has had concerns about water leaking through this wall," said Cackley.

Each week, thousands of gallons of water slowly work their way through the wall potentially carrying bits of soil and concrete that have eroded from within. This gradual seepage has, over time, reduced the stability of the wall and could eventually lead to failure.

Geotechnical engineer, Eric Hackbarth (right), explains the benefits of using roller-compacted concrete for the Lockport forebay wall to safety specialist, Jim Trail (left), and cost engineering specialist Chuck Van Laarhoven (center). *Photo by Samantha Heilig*

Contractors working on the new forebay wall at the Lockport Lock and Dam Upper Pool project use a bulldozer to spread a mixture of cement, water and crushed rock used in creating roller-compacted concrete (RCC). In total, the wall will contain approximately 80,000 cubic yards of RCC and will take nearly 4,000 off-road dump trucks to place the material. *Photo by Eric Hackbarth*

To address the issue of the leaking wall, engineers involved with designing the project recommended building a new forebay wall using roller-compacted concrete (RCC). Unlike traditional concrete walls that use forms to hold material in place, RCC uses a different process which allows layers of concrete to be laid one on top of the other until a desired height is obtained.

RCC has the same basic ingredients as conventional concrete including cement, water and aggregates, such as gravel or crushed stone. But, unlike conventional concrete, it is a drier mix that is placed, much like asphalt, and then compacted in place with vibratory rollers. Using the RCC process, the new 40-foot high, 1,500-foot long wall, will have been built 12 inches at a time, by a contracted construction team in about two months.

"This was the perfect application for the use of RCC because it was a large scale project that would have otherwise needed a great deal more time and funding to complete," said Andrew Goodall, project engineer for the forebay wall. "Using RCC we made building the wall simple, fast and economical."

Once the RCC wall is complete, the old forebay wall, currently holding the water back from where the new wall is being built will be removed. In the end, the goal of the $150 million project is that the major rehabilitation work will result in a reclassification of the Lockport facility to a higher DSAC rating.

"Much credit goes to the design team for producing a very good design under challenging site constraints and to the construction team for their dedication to the project," said Goodall. "Thanks to the excellent working relationship between engineering and construction this project has been a great success."

Spotlight on the District

Chad Weuste
Procurement Technician

By Samantha Heilig, Editor

Rock Island District procurement technician, Chad Weuste (center), who also serves with the U.S. Navy Reserve, was promoted to Chief Petty Officer on Sept. 19 at a ceremony held at the Strategic Air and Space Museum in Ashland, Nebraska. Weuste's sponsors, Chief Vernon Cochran (left) and Senior Chief Chris Glasgow (right) are shown here with him after the pinning. *Photo by Sherry Weuste*

A little more than six years ago, Chad Weuste started his career with the Corps of Engineers when he joined the Rock Island District as a member of the Saylorville Lake maintenance team. After leaving active duty with the U.S. Navy in 2009, he was looking for a career in the civilian world and his father, Keith Weuste who had recently retired as the assistant lockmaster at Lock and Dam 11, suggested he look into the opportunities the Rock Island District had to offer.

As an employee at Saylorville Lake, Weuste was involved in all aspects of maintenance throughout the project. He made lots of connections and participated in the District's Level 1 Leadership Development Program. During his time in the Des Moines area he became a member of the U.S. Navy Reserve Navy Operations Support Center Des Moines, Iowa, SurgeMain Unit where he supported annual trainings with Electrical Shop 51 and Electronics Shop 67 at Puget Sound Naval Shipyard and Intermediate Maintenance Facility, Bremerton, Washington, and the USS George Washington (CVN-73) Yokosuka, Japan.

After four years at Saylorville Lake, Weuste decided to make a change and move closer to the University of Iowa where he is working towards a business degree. He accepted a position with Coralville Lake as an administrative staff member. During his time at Coralville he continued to develop his personal and professional leadership skills by participating in the District's Level 2 Leadership Development Program.

"I enjoy working with people who care about the organization and want to work hard for it," said Weuste. "Working for the Corps has been a lot like being in the Navy because so many people care about others and carry the qualities of honesty, hard work and integrity."

Prior to working for the Corps, Weuste had served nine years with the U.S. Navy working onboard the USS Abraham Lincoln (CVN-72) in support of Operation Enduring Freedom, Operation Southern Watch, Operation Iraqi Freedom and Operation Unified Assistance. In April 2006 he transferred to the Intermediate Maintenance Facility Bangor, Washington, Electronics Shop 67 and supported the Trident Submarine community until his departure from active duty in February 2009.

In 2014, Weuste again had the chance to make a move and joined the Rock Island District Contracting Division as a procurement technician. In his position with Contracting he performs a variety of duties including timekeeping functions, monitoring reports submitted through the Contracting Officer Representative Tool, dealing with contract closeouts, reviewing and routing Requests

for Services Contract Approvals, working on contract modifications and updating the internal Contracting intranet site.

"I enjoy new challenges that come my way and working as part of a team, meeting objectives and goals," said Weuste. "Contracting provides a lot of growth and learning opportunities as policy and procedures often change and you get to work with a lot of different people both inside and outside of the contracting world."

Since making the move to the District's Contracting office, Weuste has continued his participation in the U.S. Navy Reserve NOSC Des Moines, Iowa, SurgeMain Unit and was recently selected for promotion to Chief Petty Officer. This advancement opportunity is only offered to those service members who are selected by a board of serving Master Chief Petty Officers. A pinning ceremony was held September 19 at the Strategic Air & Space Museum in Ashland, Nebraska, where Weuste received his official promotion.

Weuste was honored to be selected as Chief Petty Officer and says it's important to remember those people who have helped you along the way.

"You didn't do it alone," said Weuste. "There are so many people who have helped me get to where I am today including my family, friends and fellow service members."

In his free time, Weuste enjoys spending time with family and friends as well as traveling, boating, motorcycling and making homemade brews. Originally from the small town of Andrew in east central Iowa, he and his wife, Aubrey, now enjoy living in the town of LeClaire, Iowa. His children, now grown and moved away, both reside in South Dakota. His daughter, Sarah, is attending the University of South Dakota and his son, Adam and fiancé Kodee, live in the city of Sioux Falls.

Weuste hopes to continue working for the District for many years to come and looks forward to the continued opportunities that both the Corps and the Navy Reserve have to offer.

Deputy Commander Competes with Rock Island Arsenal Team for Army Ten-Miler

By Samantha Heilig, Editor

On October 11, Deputy Commander, Lt. Col. Dan Segura, competed in the Army Ten-Miler Race in Washington, D.C., as part of an eight person team from the Rock Island Arsenal.

"I have always enjoyed running," said Segura. "I decided to try out for the Army Ten-Miler to challenge myself and get the opportunity to compete in an event that is a long-standing tradition in the Army."

Although this was Segura's first time running the Army Ten-Miler race, it was not his first time running in a long distance race. Just two weeks before leaving for Washington, D.C., he ran in the Quad City Half-Marathon. He has also participated in several local 5K races with his wife and children.

"I love that running is something I can enjoy with my family," said Segura. "From my 17 year old to my 6 year old, everyone has fun running and they all like to do their best."

This year the Rock Island Arsenal team placed 29th out of 56 teams in the Active Duty Mixed Division. Segura's individual time was 1 hour, 14 minutes and 45 seconds. He says he was pleased with his run and felt that everyone performed well at the race.

"The best part of running with the Rock Island Arsenal Ten-Miler team was that all of the runners had such positive energy," said Segura. "It was fun to be a part of such a large event with so many great runners from across the country."

Lt. Col. Dan Segura (second from right) stands with his teammates (from left) Chief Warrant Officer 3 Jean Belizaire, Master Sgt. Efren Delpilar, Capt. Travis Lynch and Capt. Justin Bergen from the Rock Island Arsenal for the Army Ten-Miler run in Washington, D.C.
Photo provided by Dan Segura

Taking Printing to a Whole New Level

By Andrew Goodall, Project Engineer

The idea of taking a two-dimensional drawing and turning it into a three-dimensional object is something engineers have been doing for years. A new project recently completed by the Inland Navigation Design Center (INDC) at the Rock Island District is taking this concept to a new level with the help of a local university and some new computer technology.

During times of emergency repair and maintenance, navigational locks, like Emsworth Locks and Dam located just outside Pittsburgh, Pennsylvania, on the Ohio River are blocked off with temporary walls called bulkheads that prevent water from entering the chamber. These bulkheads must fit tightly into the lock wall and be held securely in place by a channel in the concrete wall known as a recess. In fall 2014, the INDC was tasked with designing new lock bulkhead recesses for the Emsworth Locks.

Designing the lock bulkhead recesses was not a problem for the INDC and the team completed the design in about two months. After the design was completed, operations project engineer, Bob Szemanski of the Pittsburgh District contacted the INDC and asked if it would be possible to print the project in 3D before the actual construction was to take place at the lock.

Greg Turko, civil engineer with the Pittsburg District, stands with their new 3D Emsworth Lock model that will be used for training new employees on the process of bulkhead installation. *Pittsburg District Photo*

This model of the Emsworth Lock in Pittsburgh, Pennsylvania, is an example of how engineers can use additive manufacturing, also known as 3D printing, to create life-like models of their engineering designs. *Photo by Andrew Goodall*

Three-dimensional printing, also known as additive manufacturing, is a process where a solid 3D object can be created with a specialized printer and a digital file. The INDC does not currently have the equipment or software needed to perform 3D printing but they were willing to look into options for having it done outside the Corps. Mike Lindsey, an engineering technician with the Rock Island District, did some research and found that Western Illinois University – Quad Cities could produce the print.

To begin the process, the virtual Computer-aided Design (CAD) model was sent to Jeff Rose, an engineering technology instructor at Western Illinois University. Jeff played an integral part in producing the print and worked closely with the INDC to print exactly what was needed.

"Although 3D printing is a relatively new process," said Lindsey. "It is becoming more common and more places are making it a standard in engineering design."

To create the 3D model, Rose used a robot-like 3D printer that laid down successive layers of material to build the three-dimensional version of the design. The Emsworth Lock model took a few weeks to print due to its size and level of detail but once completed was a 1/90th scale version of the downstream end of the real lock.

"The benefit of 3D printing is that it allows people to see how a finished project will look in real-life," said Lindsey. "It also allows engineers to identify possible issues before a project is built to full scale."

After the model was printed, the INDC shipped it to Pittsburgh District where they intend to use it for teaching new employees about the bulkhead installation and to show specifics on how the project works.

"I can't say enough how much help Western Illinois University – Quad Cities was during the whole process," said Lindsey. "I look forward to working with them in the future to produce more 3D prints."

SAFETY CORNER

Know the Ins and Outs of Emergency Exit Routes

By Jim Trail, Safety Specialist

Knowing how to escape from your workplace during an emergency could mean life or death in a serious situation. The following information provides basic knowledge about what an exit route is and what is required by an employer to ensure employee safety during an emergency.

What is an exit route?

An exit route is a continuous and unobstructed path of exit travel from any point within a workplace to a place of safety. An exit route consists of three parts:

- Exit access – portion of an exit route that leads to an exit.
- Exit – portion of an exit route that is generally separated from other areas to provide a protected way of travel to the exit discharge.
- Exit discharge – part of the exit route that leads directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside.

How many exit routes are needed?

A workplace typically needs two exit routes for prompt evacuation. More than two exits may be required if the number of employees, size of the building, or arrangement of the workplace will not allow a safe evacuation.

What are the requirements for exits?

- Exits must be separated by fire resistant materials such as one-hour fire-resistance rating if the exit connects three or fewer stories and two-hour fire-resistance rating if the exit connects more than three floors.
- Exits are permitted to have only those openings necessary to allow access to the exit from occupied areas of the workplace or to the exit discharge. Openings must be protected by a self-closing, approved fire door that remains closed or automatically closes in an emergency.

What are the maintenance, safeguarding and operational features for exit routes?

OSHA standards require employers to take the following measures to ensure proper maintenance and operation of exit routes:

- Keep exit routes free of explosive or highly flammable furnishings and other decorations.
- Arrange exit routes so employees will not have to travel toward a high-hazard area unless the path of travel is effectively shielded from the high-hazard area.
- Ensure that exit routes are unobstructed by items such as materials, equipment, locked doors or dead-end corridors.
- Ensure that safeguards designed to protect employees during an emergency remain in good working order.
- Provide lighting for exit routes adequate for employees with normal vision.
- Keep exit route doors free of decorations or signs that obscure the visibility of exit route doors.
- Post signs along the exit access indicating the direction of travel to the nearest exit and exit discharge if that direction is not immediately apparent. Also, the line-of-sight to an exit sign must be clearly visible at all times.
- Mark doors or passages along an exit access that could be mistaken for an exit "Not an Exit" or with a sign identifying its use such as "Closet".
- Install "EXIT" signs in plain legible letters.
- Maintain exit routes during construction, repairs or alterations.
- Provide an emergency alarm system to alert employees, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them.

Around the District

Retirements ...

Rodney Clausen, construction control representative with the Quincy Area Office, retired August 31, after dedicating more than 36 years of service to the federal government.

Michael Vandekerckhove, staff accountant with the Resource Management Section, retired August 31, after dedicating more than 33 years of service to the federal government.

Susan Brown, construction control representative and temporary security specialist, retired September 30, after dedicating more than 21 years of service to the federal government.

Danny Johnson, a master tender for the Illinois Waterway Project Office, retired after dedicating more than 20 years of service to the federal government.

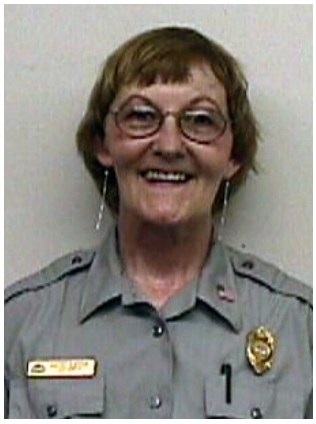
Michael Hayes, electrician for the Illinois Waterway Project Office, retired September 30, after dedicating 36 years of service to the federal government.

Daniel Hayes, supervisory biologist and section chief for the Iowa Section of the Regulatory Branch, retired September 30, after dedicating more than 31 years of service to the federal government.

Congratulations ...

The Rock Island District softball team nabbed the post season crown winning the Rock Island Arsenal softball tournament in September. After a somewhat disappointing regular season which ended with a sixth place finish for their overall record, the team recovered for the post season tournament, knocking off several higher-seated teams en route to the championship. *Photo by Jackie Niles*

Sympathy ...



"Ranger Kathy" - Katharine Higdon, 73, of Marseilles, Illinois, passed away August 8.

Higdon worked for the Illinois Waterway Visitor Center as a park ranger for more than 36 years before retiring from the Rock Island District in January 2015.

Patricia Peppers, 54, of Davenport, Iowa, passed away August 29.

Peppers was employed with the Construction Branch as an administrative office assistant though the Pathway Intern Program at the Central Area Office.

Follow Us

Stay up-to-date on what's happening around the Rock Island District by following us on social media. The District office has both a Facebook page at: https://www.facebook.com/RockIslandDistrictUSACE and a Twitter account at: https://twitter.com/USACERockIsland. You can also see what's going on at the three District reservoirs by following their Facebook pages at:
https://www.facebook.com/coralvillelake
https://www.facebook.com/SaylorvilleLake
https://www.facebook.com/lakeredrock

Have something you would like to share?

If you have something you would like to submit for the Around the District section of the Tower Times please send it to samantha.a.heilig@usace.army mil

Esprit de Corps Celebrates 30 Years

By Bob Riebe, Retiree and founding member of the Esprit de Corps Toastmasters club

Toastmasters International is a worldwide organization created to help people improve their speaking, listening and leadership skills. Members work at their own pace to progress through a series of manuals that focus on developing different skills and techniques used in public speaking. During meetings, speakers are given friendly and constructive criticism from their peers about their speeches and achieve increased educational levels and awards as they progress.

The Esprit de Corps club started in 1985 when a small group of Corps employees with Toastmaster experience sent a series of messages to employees of the Rock Island District suggesting that a Toastmasters club be started at the District Office. A minimum of 20 members were needed to charter the club and at the time 35 people signed up to take part. Toastmasters International officially issued the charter for the club in September 1985.

The club's name, Esprit de Corps, was selected because it means a sense of unity and of common interests and responsibilities, as developed among a group of persons closely associated in a task, cause, enterprise, etc. Members initially were very involved in the club, working through speech manuals and achieving Competent Toastmaster educational awards. Some chose to progress further than others and with each level the speaking became increasingly complicated and took more time to complete.

A total of 200 people have been members of the Esprit de Corps club throughout the past 30 years. Changes to membership have occurred as people changed jobs, moved away from the Corps or left the group after feeling they had learned what they needed from participating in the club. At times, attendance was very low with only seven or eight active members. During that time the club knew it needed help and members went looking for ways to drum up interest in the club.

After learning about a Toastmasters program called the Distinguished Club Program that measured the effectiveness of a club to meet its training goals, the Esprit de Corps was able to build its membership back up to the minimum 20 members in a little more than a year's time. For doing so, the club was presented the Phoenix award by the Toastmasters International. The club learned several years later that the Phoenix award had been a special one-time only award provided by one of the higher level Toastmasters officers just for the Esprit de Corps club. Since that time the Esprit de Corps has maintained its active status and has, for a number of years, won the Distinguished Club award. On a few occasions it has also earned the top Toastmasters award, the President's Distinguished award.

Originally a "closed" club, the group that currently has 23 members has opened its doors to non-government and off-island participants wishing to join the club. Meetings are held on the first and third Wednesday of each month from 11:45 a.m. to 12:45 p.m. in the ABC Conference Room. Anyone interested in learning more about the club is welcome to sit in on monthly meetings or contact the club president Michael Cummings via email at michael.r.cummings@usace.army.mil. The group also has a website at http://espritdecorpstm.easy-speak.org where you can learn more about the Esprit de Corps club and the Toastmasters International organization as a whole.

Esprit de Corps club members (from left) Brad Palmer, Emily Cummings, Tom Gambucci, Lloyd Trowers, Michael Cummings, Steven Johnson, Kristin Bruchmann, Bob Riebe, Kirsten Brown, Tamara Loose and Elizabeth Robinson gathered to celebrate 30 years of the Rock Island District's Toastmasters International club. Additional club members not shown include Michael Cox, Kyle Gripp, Alper Guder, Cory Haberman, Wayne Hannel, Jason Jones, Chris Reger, Erica Stephens, Michael Tarpey and Matthew Zager *Photo by Allen Marshall*

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Retirees Meet for Annual Luncheon

Retirees, alumnae and spouses gathered for an annual luncheon at the Quad City Botanical Center on Wednesday, September 9. This is a yearly event and is always held two days after Labor Day. If you are retired and are not receiving emails regarding these lunches, or if you plan to retire during this next year and would like to be added to the email group, please send your personal email address to Dudley Hanson at lutefisk16@msn.com.

Photo courtesy of Jerry Hahn