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Mississippi River Commission meets with hundreds of citizens during recent high-water inspection trip

By Bob Anderson, MVD Public Affairs

Mississippi River Commissioners hear water resource concerns from local partners, stakeholders and residents during their second public meeting in Helena, Ark., April 8, 2014. *(Photo by Daren Reehl, Memphis District)*

The Mississippi River Commission conducted its annual high-water inspection trip on its namesake river from April 7-11, and on the same day the inspection tour began, the river went into flood stage at Cairo, Ill. Talk about timing!

Four public meetings were conducted aboard the Motor Vessel MISSISSIPPI so commission members could meet with local partners, stakeholders and residents and hear their concerns, ideas and issues. The meeting places and dates included Tiptonville, Tenn., on April 7th; Helena, Ark., on April 8th; Greenville, Miss., on April 9th; and New Orleans, La., on April 11th.

All meetings were open to the public and each meeting was attended by at least 75 citizens. The main purpose of the public meetings is to maintain a dialogue, an exchange of viewpoints and ideas flowing between the watershed interests, the public and the Corps.

Commission President and Mississippi Valley Division Commander Brig. Gen. Duke DeLuca gave an impassioned speech during each of the public meetings about the impacts of climate change on the river, such as severe flooding and droughts, as well as the impacts of rising sea levels on states along the Gulf of Mexico. His presentation also addressed the importance of beginning work today to meet the future climate change challenges facing our nation over the next century.

(The link to the MVD commander's MRC speech is available on Youtube at http://youtu.be/0tJZQfb9egU.)

The MRC, established in 1879, is composed of seven members, each nominated by the President of the United States and vetted by the Senate. Three of the organization's members are officers of the Corps of Engineers; one member is from the National Oceanic and Atmospheric Administration; and three members are civilians, two of whom are civil engineers.

Since 1879, the seven-member Presidentially appointed Mississippi River Commission has devel-

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Inside this issue...

Around the Bend Snapshot: The MRC high-water inspection trip

April 7-8, 2014–Brig. Gen. Duke DeLuca, commander of the Mississippi Valley Division and president of the Mississippi River Commission, addresses local partners, stakeholders and residents during the commission's high-water inspection trip public meeting in Tiptonville, Tenn., aboard the Motor Vessel MISSISSIPPI.

April 8-9, 2014–Mississippi River Commissioners gather aboard the Motor Vessel MISSISSIPPI for their public meeting in Greenville, Miss. Pictured (from l. to rt.) are Col. John C. Dvoracek, deputy commander of the MVD; the Honorable Norma Jean Mattie, Ph.D.; Brig. Gen. John S. Kem, commander of the Northwestern Division; the Honorable Sam E. Angel; Brig. Gen. Duke DeLuca, commander of the MVD and president of the MRC; the Honorable R.D. James; Brig. Gen. Margaret W. Burcham, commander of the Great Lakes and Ohio River Division; and Rear Admiral Gerd F. Glang.

MRC meets with hundreds... *(continued from page 1)*

oped and matured plans for the general improvement of the Mississippi River from the Head of Passes to the Headwaters. The Mississippi River Commission brings critical engineering representation to the drainage basin, which impacts 41 percent of the United States and includes 1.25 million square miles, more than 250 tributaries, 31 states and two Canadian provinces.

The MRC has been listening, inspecting, partnering and engineering since 1879.

April 9, 2014–Stephen Gambrell, executive director for the MRC, escorts the Honorable Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works, from the Motor Vessel MISSISSIPPI following the commission's high-water inspection trip public meeting in Greenville, Miss.

April 10-11, 2014–MRC members listen to water resource concerns from partners, stakeholders and residents during the public meeting in New Orleans, La., aboard the Motor Vessel MISSISSIPPI.

U.S. Fish and Wildlife Service Director honors U.S. Army Corps of Engineers for collaborative conservation action

By Tom MacKenZie, USFWS, and Gene Pawlik, USACE

U.S. Fish and Wildlife Service Director Dan Ashe praised a collaborative effort across the lower Mississippi River Basin with the U.S. Army Corps of Engineers that has helped advance conservation for three endangered species.

An interagency meeting was held at the U.S. Department of Interior, Washington, D.C., April 29, regarding the celebration of the U.S. Fish and Wildlife Services/U.S. Army Corps of Engineers collaboration on Lower Mississippi River conservation plan to protect three endangered species, the Interior Least Tern, Pallid Sturgeon and Fat Pocketbook. Pictured (l. to rt.) are Stephen Ricks, Field supervisor, Mississippi Field Office, USFWS; Daniel M. Ashe, director, USFWS; Lt. Gen. Thomas P. Bostick, chief, USACE; Steve Stockton, director of Civil Works, USACE; Dr. Barbara Kleiss, director of Mississippi River Science and Technology, Mississippi Valley Division, USACE; Sally Jewell, Secretary of the U.S. Department of Interior; Eddie Belk, director, Programs Directorate, MVD, USACE; the Honorable Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works; Paul Hartfield, USFWS; Dr. Jack Killgore, team leader, Engineer Research and Development Center/Environmental Laboratory; Dr. Beth Fleming, director, ERDC/EL; and Cynthia Dohner, Southeast regional director, USFWS. *(Photo by Gavin G. Shire, USFWS)*

The collaboration highlights the responsibility and opportunity for all federal agencies to conserve endangered and threatened species under the Endangered Species Act. This joint effort by the Corps and the Service proves that by working to incorporate the needs of threatened and endangered species in the work that they do, federal agencies can help species recover.

Specifically, it lays the foundation for broad habitat conservation actions that will help scientists meet population objectives more quickly for the Interior Least Tern, Pallid Sturgeon and Fat Pocketbook Mussel. The resulting habitat improvements will also benefit other fish and wildlife reliant on the Mississippi River Basin.

Both the overall approach and the techniques the agencies have developed under it can be implemented nationwide.

"The U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers are seeing positive conservation results already thanks to steps included in this cost-effective approach," said Ashe. "This is significant as it demonstrates that conservation can coexist with transportation, national security and the region's economic needs."

The success stems from progressive steps the Corps and Service took under Section 7(a)(1) of the ESA that helped pave the way for subsequent consultations under the act. The end result was a transformation of the Corps' Channel Improvement Program – a flood control and navigation strategy from a primary threat into a primary conservation tool for the three listed species. The Corps is using water and sediment that previously flowed directly down the river to now enhance aquatic habitats in the lower Mississippi River Basin. This will provide better opportunities for Americans to fish, bird watch and boat on one of our nation's greatest rivers. Not only will the listed species benefit, so will recreational species such as bass, catfish and crappie, boosting local economies.

"Together the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service have built a foundation for future cooperation," said Assistant Secretary of the Army for

'USFWS Director honors USACE...' con't on page 5)

USFWS Director honors USACE...(continued from page 4)

Civil Works Jo-Ellen Darcy. "This harmonious approach will [save] huge amounts of work and money for both agencies moving forward, all while best serving the Interior Least Tern, the Pallid Sturgeon and the Fat Pocketbook Mussel."

Thanks to the steps taken that are included in this plan, the population status of all three species is improving. Indeed, a recently completed five-year review for the Interior least tern recommended delisting it due to recovery, citing an increase in the tern population from 6,000 to 10,000 birds. The Service is now in the process of putting in place the necessary monitoring plans, conservation agreements and population models in hopes of moving forward with a proposed delisting in the near future.

"The U.S. Army Corps of Engineers appreciates this recognition today of the successful collaboration between our agencies and specific contributions by USACE team members," said Lt. Gen. Thomas P. Bostick, U.S. Army Corps of Engineers commanding general. "The Corps of Engineers, together with our partners, is committed to a 200-year vision for the Mississippi Watershed – America's Watershed – that balances the nation's needs, such as flood risk reduction and management, environmental sustainability and recreation. The Lower Mississippi Conservation Plan is a stellar example of that commitment."

The approach has also been credited with expanding the fat pocketbook mussel population into new areas and with increased pallid sturgeon numbers, all with no negative effects on critical flood control or navigation missions.

"This is really a milestone in conservation thinking and planning," said Ashe. "It goes to show that when agencies plan ahead for conservation, it pays off all around, both in terms of saving money and staff time, as well as benefiting our nation's wildlife resources for the American people."

The Service is using the success of the Corps' Mississippi Valley Division conservation program to bolster efforts to expand this approach nationwide for both agencies and is looking at similar opportunities with other federal agencies.

Cathy Hall receives Superior Civilian Service Award, retires from MVD

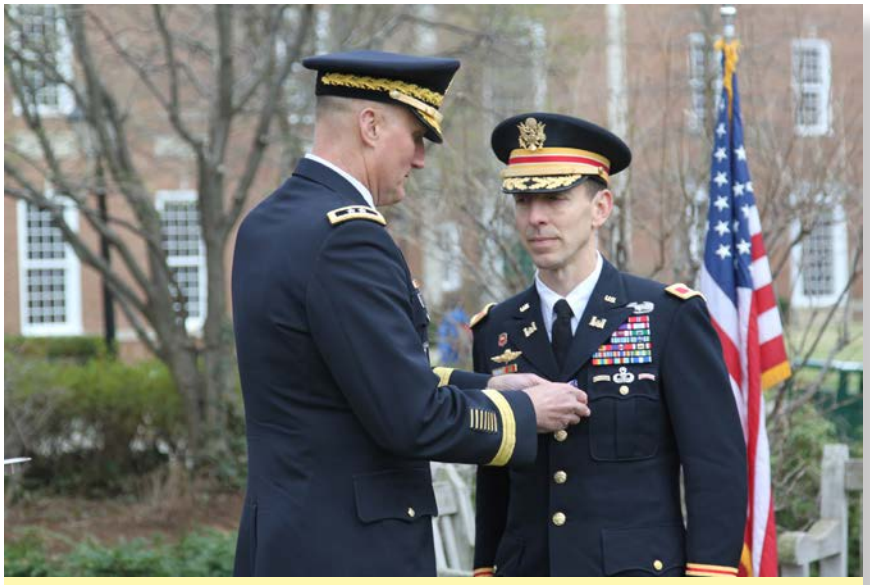
Jared Gartman (left), chief of Readiness and Contingency Operations for the Mississippi Valley Division, and Col. John C. Dvoracek, MVD deputy commander, recently presented Cathy Hall with the *Superior Civilian Service Award* during her retirement ceremony, April 3, 2014. She was awarded for exceptional performance in her position as deployment coordination administrator, managing over 200 deployments in support of the Overseas Contingency Operations for the MVD during the period April 2012 to April 2014. Hall retired with more than 35 years of service. Hooah!

Boston Marathon hero awarded Soldier's Medal

By Bernard Tate
USACE Public Affairs

Many Americans have seen the shaky photos and videos taken when the bombs exploded at the finish line of the Boston Marathon on April 15, 2013. Among the many people who went to the aid of the injured, there are glimpses of runners who stripped off their shirts to tie tourniquets around the shattered limbs of bomb victims.

One of those unknown runners was Everett Spain, an Army colonel in the Engineer branch who is earning a doctorate in management at the Harvard Business School. On April 18, in a ceremony on the school's Baker Lawn, Spain received the Soldier's Medal, the Army's highest award for valor in a non-combat situation.



Col. Everett Spain receives the Soldier's Medal from Maj. Gen. William Rapp, Chief of Army Legislative Liaison. The Soldier's Medal is the U.S. Army's highest decoration for valor in a non-combat situation. Spain received the medal April 18, 2014, on the Baker Lawn of the Harvard Business School in Boston, Mass., where he will receive his doctorate in business administration in May 2014. Spain received the award for his actions during the Boston Marathon bombing on April 15, 2013. Spain immediately ran toward the bombing site and rendered first aid until medical help arrived, despite potential danger from further attacks. *(U.S. Army photos by Geerati Choosang)*

But Spain has shunned any publicity, avoided interviews with the civilian news media.

"First and foremost, I was brought up to believe that a military officer should never seek praise for themselves," Spain said. "Our purpose is to serve others through character and leadership."

Despite Spain's modesty, his actions are a matter of public record in images taken during the Boston Marathon attack. He was only about 100 yards from the finish line when the bombs exploded.

He was escorting Steve Sabra, a 58-year old visually impaired runner who frequently selects Harvard Business School students to be his race guides. Spain's wife, Julia, escorted Sabra on the first 10 kilometers (6.2 miles) of the race. Tom Hennessey and Scott McBride, both Harvard Business School students and Navy veterans, also escorted Sabra. Hennessy ran from the 10K to the 20K mile markers, and McBride from the 10K to the 30K, where Spain took over to escort Sabra to the finish line. McBride decided to tag along to the end.

The trio was 100 yards from the finish line when the first bomb detonated about 50 yards ahead. Moments later, the second bomb detonated about 210 yards behind the first.

Spain is a 22-year Army veteran with combat experience. In Iraq he received the Purple Heart while with the 1st Cavalry Division, and later served as the aide-de-camp of Gen. David Petraeus, commander of the Multi-National Force-Iraq, during "The Surge." He is also a graduate of the elite U.S. Army Ranger School.

So the moment the bombs exploded, Spain instinctively grabbed Sabra's elbow and sprinted to the finish line. McBride escorted Sabra to his family waiting in the reunion area while Spain ran back to the site of the first explosion.

"It's what Soldiers do," Spain said. "Scott had positive control of Steve and was taking him towards safety, so it was my responsibility to run to the critical point and see if I could help. I've served with thousands of brave and selfless service members and civilians throughout my time in the Army, and they all had high expectations of me and each other to always try to do the right thing."

He found several severely wounded people on the sidewalk, including a man bleeding profusely from his lower left leg while his daughter, distraught and wounded herself, frantically tried to stop her father's bleeding. Spain immediately removed his shirt and tied it tightly around the man's wound.

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Boston Marathon hero... (continued from page 6)

"My husband, Ron, had lost a large portion of his leg," said Karen Brassard, recounting the moment. "I had a sweater and tried to make a tourniquet, but it just didn't work. My daughter panicked; she thought she was going to lose her dad. Then Everett came and tied another tourniquet and got my daughter to calm down enough to let Ron go so that they could take him to a tent. Everett had been in battle and had seen stuff like this. He was so self-assured, so calm that my daughter trusted him. It was amazing to watch."

Spain then moved to a woman lying in a pool of blood in the doorway of an athletic store while another responder tried unsuccessfully to put pressure on the wound. Spain secured a jacket from the store, tied its arms into a tourniquet just above the woman's leg wound, and used a sturdy clothes hanger to tighten the tourniquet. He and the other responder then held the woman's legs in the air until emergency medical technicians arrived several minutes later.

Spain heard the athletic store's fire alarms and searched for possible victims trapped inside that store and two neighboring buildings. When he exited the third building, uniformed responders asked him if he was all right, then ordered him to depart the area.

Spain was smeared with blood (not his own), and a concerned bystander escorted him to the race's medical tent. There Spain saw a woman with multiple serious limb injuries and severe burns wheeled in on a gurney and left alone. She was shaking and turning pale, which Spain recognized as symptoms of shock, so he got another blanket and then stayed with her, talking to her and comforting her. Several minutes later, Spain accompanied her in an ambulance to Boston Medical Center, holding her hand and reassuring her the entire way.

Thinking back on that day, Spain says that he doesn't remember being scared because his training kicked in automatically. "I remember a lot of that day vividly, but some things I simply do not remember, for example treating one of the victims who was captured in photographs."

Spain and his family have kept in touch with the people he aided and their families. Six survivor families, including all of those that Spain met that day, attended the ceremony where he received the Soldier's Medal on April 18. The Soldier's Medal is the Army's highest award for valor in a non-combat situation involving personal danger and voluntary risk of life. The award requires the same level of valor as the Distinguished Service Cross had the situation involved combat.

"Without hesitation we were on board with the Soldier's Medal because it isn't easy to run back into danger with no idea how any more bombs there were or what you're going to see," said family member Karen Brassard. "It's not a natural instinct to do that. He is such a genuinely good man, and I think he deserved such recognition, even though that's so anti-Everett."

Spain says it is difficult to explain why he reacted as he did that day. "I can say with perfect honesty that it was not me that ran toward the smoke, but the values deliberately imprinted on me by my faith, my family, my friends, my mentors, the many character-building institutions I've been privileged to be associated with, and our American spirit," Spain said in his speech during the ceremony. "Those values ran toward that smoke."

Spain says that any Soldier has the training and the values to do what he did.

"I'm no hero; I'm simply a work in progress," he said in his speech during the ceremony. God has His own timing, and I hope I was able to be a small help to others during their time of need. The truth is that all past, present and future U.S. service members and their families would have done the same things I did, and more."

On April 21, just a few days after the Soldier's Medal ceremony, Spain and his wife ran the Boston Marathon again and finished together. Julia is also at Harvard getting a masters degree in extension studies, with a concentration in international relations.

"Julia and I ran the whole thing together," Spain said. One of the families that he assisted gave them invitation entries. The family received the entries from the Boston Athletic Association to give to whoever they wished. "It was Julia's first marathon and it was a great experience as a couple."

Spain will graduate from the Harvard Business School in May with a doctorate in management. His previous assignment was commander of U.S. Army Garrison Schweinfurt in Germany. His next assignment is to the faculty of the U.S. Military Academy at West Point teaching in the Department of Behavioral Sciences and Leadership.

MVD attends the FIRST Robotics Championship Competition

By Toni Lowe-Fisher, Ph.D.

Thursday evening, April 24, 2014, several MVD employees attended the For Inspiration and Recognition of Science and Technology (FIRST) Robotics Championship Competition in St. Louis, Mo.

As the group approached the Edward Jones Dome, it appeared to be a routine event with random spectators. Upon reaching the atrium, an explosion of innovation overwhelmed them! There were thousands of students, perusing in colorful banners, hats and capes, donned with buttons and achievement medals. There was music, dancing, cheers and roars – all for the love of STEM (Science, Technology, Engineering and Mathematics).

FIRST, founded by Dean Kamen in 1989, was established to inspire young people's interest and participation in science and technology. This not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering and math, while building self-confidence, knowledge and life skills "… to create a world where science and technology are celebrated…where young people dream of becoming science and technology heroes…" Today, this program is the culmination of 2,720 teams and 68,000 students in grades 9-12 with 54 regional events, four qualifying championships and 40 qualifying competitions.

The goal of the organization is to develop ways to inspire students in engineering and technology fields. They have a philosophy of cooperative competition, which is expressed by the organization as cooperation and gracious professionalism:

- "Learn and compete like crazy, but treat one another with respect and kindness in the process."
- "We try to avoid leaving anyone feeling like they have lost."
- " No chest-thumping barbarian tough talk, but no sticky sweet platitudes either."

Impacts for students:

- Opportunities for hands-on experience.
- Opportunities to work in multi-discipline teams.
- Seventy percent more motivated to do well in high school.
- More likely to attend college.
- Three times more likely to major in engineering.
- Ten times more likely to have an internship.

Educational opportunities include: computer aided drafting (CAD) training, programming training and summer design/build session.

What Did We See at the Dome?

MVD was hosted by the FIRST Team, The Fighting Calculators of Minnesota. We experienced a combination of high school field trip, rock concert, final four basketball championship, NASCAR pits and technology convention; qualification matches on four separate fields; a game; and a tour of the team pits. In this competition, teams built robots in six weeks from a common kit of parts provided by FIRST, and typically weigh up to 150 lbs. Each year, the robot must complete a different task. This year, the robots played basketball! Meanwhile, the FIRST LEGO team for elementary students focused its theme on "Disaster Preparedness." These projects were set up similar to MVD's disaster relief exercises, and teams accumulated points based on predetermined criteria.

At the close of the tour, students and senior leaders shared their perspectives on STEM and how it relates to building the Corps' future workforce. Michael Turner, chief, Business Technical Division, stated "These students are learning valuable skills (i.e., teambuilding, problem solving, etc.) that will better prepare them as they enter the workforce."

MVD Chief of Operations Dennis Norris added: "One of the most amazing aspects of this experience is the mentoring that occurs between the junior and senior students."

"Our future is in good hands," said Col. John Dvoracek, MVD deputy commander.

Thanks so much to Mr. Tom Crump (MVP) and The Fighting Calculators for the awesome opportunity to attend the FIRST Robotics Championship Competition. This experience was only a snippet of the capability of our potential workforce, and there is so much more!

Did you know that there is a FIRST team in the proximity of every district along the valley? We encourage each district to get involved via your local FIRST team. For more information on your local area, visit the FIRST website at www.usfirst.org.

STEM and building the great engineer

By Toni Lowe-Fisher, Ph.D.

Under Goal 4 of the U. S. Army Corps of Engineers Campaign Plan, our priority is to focus on recruiting strong individuals, who in turn will build strong and cohesive teams. Objective 4d, in particular, states that we should establish tools and systems to get the right people in the right jobs; then develop and retain this highly skilled workforce. Science, Technology, Engineering and Mathematics (STEM) plays an integral role in accomplishing the goals; hence, it is one of the key components to building the Great Engineer Model.

In keeping with the spirit of the USACE STEM strategy, we must "posture USACE as an Army leader in increasing STEM education." According to the USACE Human Capital Strategic Plan (2012-2017), the 21st century requires scientific and technological innovations become increasingly important, as we face the benefits and challenges of both globalization and a knowledge-based economy. To succeed in this new information-based and highly technological society, students need to develop their capabilities in science, technology, engineering and mathematics to levels much beyond what was considered acceptable in the past. STEM learning and education is not restricted to just one segment of the workforce. Technology is pervasive in our daily lives, and as the workplace changes, STEM knowledge and skills grow in importance for all workers. An educated workforce is necessary to remain competitive in a dynamic global economy.

According to the USACE Human Capital Strategic Plan, nearly 40 percent of the workforce is early-retirement eligible or optional-retirement eligible. Thirty-nine percent of our workforce has nine or less years of experience, 20 percent with 10 to 20 years of experience and 41 percent with more than 21 years of experience. This has resulted in a talent gap because we do not have a sufficient number of experienced workers to replace the many years of institutional knowledge lost with each retirement every year.

So, how do we bridge the gaps? Recruiting the right talent in STEM fields to meet current challenges and projected workload is critical to the accomplishment of USACE mission requirements. However, it has become more difficult to fill STEM jobs due to a decreasing supply of available candidates and competition with other federal agencies and the private sector for the same talent pool. Hence, the question is… is recruitment alone sufficient to building the bench? The answer is "no." In order to build the bench and to succeed, USACE must consider a two-fold approach. From an outreach perspective, USACE must be proactive and embrace programs and initiatives that encourage individuals to consider STEM-related career fields in the federal service. Internally, USACE must aggressively implement a sustainable knowledge management system. According to USACE Mandatory Action 4a2, we are challenged to improve knowledge creation, sharing and technology transfer. As technological advancements continue, long gone are the days of institutional knowledge being penned in folders and personal notebooks, which are tossed just days prior to retirement.

Where Do We Go from Here?

First, MVD must define what STEM means for our organization. MVD is primarily a civil works organization. The Corps manages a diverse portfolio of complex, high-dollar value projects that results in planning, engineering and design, construction and management of key infrastructure projects across the nation. Through innovative solutions, the agency provides a wide range of services - from water resources, engineering and construction, operations and maintenance, to emergency management. Our contributions to the nation not only promote a stronger economy, but support the environment and overall quality of life for all Americans. We are the nation's most effective and dynamic public engineering and technical services organization. We must assess what that means for us and develop an implementable approach to promote our fortitude and long-term sustainability. Furthermore, we must take an aggressive approach to managing knowledge and technical capabilities. As our workforce continues to evolve, knowledge management is more critical than ever.

Second, we must engage in outreach and develop formal partnerships with our schools, institutions of higher learning and other stakeholders to foster a STEM-driven environment. There are opportunities to collaborate in such partnerships and provide the exposure that is so very critical to our students – through all grade levels, including college. Did you know that there is a FIRST team in the proximity of every district along the valley? We encourage each district to get involved via your local FIRST team. For more information on your local area, visit the FIRST website at www.usfirst.org. Other outreach targets to consider include: high school JROTC and college ROTC programs as well as all military services to include Active and Reserve Component recruitment offices. It is recommended that we develop teams to go into the schools and collaborate with the educators and administrators. To ensure success, the students must partner with mentors and role models. Teaming up key constituents (i.e., teachers, college professors and recruiters) with our MVD engineers and scientists could be our most valuable asset.

Third, we must continue to efficiently and effectively utilize our student employment programs. Current student employment opportunities include the Pathways Program. It is recommended that we maximize the opportunity to provide hands-on, on-the-job experience, as opposed to theory

('STEM...' continued on page 11)

U.S. Army Dive Team repairs trash rack channel at Narrows Dam

By Shirley Smith
Vicksburg District

The 569th Engineer Detachment Dive Team, 30th Engineer Battalion, 20th Engineer Brigade of Fort Eustis, Va., recently assisted the Ouachita Project Management Office by doing underwater reconnaissance and repair work to the trash rack system at Narrows Dam, Lake Greeson. The dam impounds the waters of the Little Missouri River to form Lake Greeson, a 7,000-acre lake in southwest Arkansas. The dam is vital to the economy of surrounding communities and businesses within Pike County and southwestern Arkansas.

SSG Bryan Crowley, standing left, gives instructions to divers seated left to right, SGT Scott Wilson and PFC Christopher Miller, while other dive team members look on, left to right, SFC Blanchard Woodcox, PFC Jesse Moore and PFC Jordan Ramirez. *(Photo by Kavanaugh Breazeale)*

On February 9, 2014, a trash rack broke loose and fell to the bottom of the dam, where water is about 160 feet deep. What is a trash rack? The dam has three generators supported by metal trash racks, each about 14 feet tall, that run across the upstream face of the dam in front of the intake tunnels. The trash racks are sturdy metal structures, similar to large screens, that prevent water-borne debris (such as logs, boats, animals, mats of aquatic vegetation, etc.) from entering the tunnels and interfering with operations.

Due to the missing trash rack, only one generator could operate. The dam could not meet full power generation requirements until temporary repairs were completed. The Narrows Power Plant staff initially sent a remotely operated underwater camera down the channel of the missing rack to investigate the cause of the failure. The camera discovered the cause to be deterioration of the metal guides that held the racks in place. A dive team would be the only solution to accomplish temporary repairs and restore generation capability.

The first dive team members arrived at Narrows Dam March 23 and met with supervisory facility manager David Ross of the Lake Greeson Field Office. They reviewed the area and determined the optimal location for the dive station. An activity hazard analysis review and safety briefing were held for all members participating in offloading the diving equipment. The team reviewed blueprints of the trash racks and intake structure, and discussed lockout/tagout procedures with divers.

According to Captain Daniel Arnold, commander of the 569th Engineer Detachment, also known as "Sappers of the Deep" this was the first dive mission that the unit had performed for the Corps of Engineers during his command. He stated that the dive team consists of five detachments, each with 22 divers; 17 members of this detachment reported for this effort at Narrows Dam to complete the inspection and temporary repair work. Diver experience on the team ranged from three months to 18 years. Dives were conducted between four to seven hours per day, beginning around 9:45 a.m. and ending at 5:00 p.m. Work at the underwater depths involved required careful planning and execution for safety of the divers.

The dive team was at the site for two weeks, conducting 22 and a half hours of total dive time. They inspected the other trash racks to determine if channels were similarly deteriorated. As a temporary repair, they also welded angle iron along the interior of the trash rack channel to mitigate future failure. Recovery of the fallen trash rack was considered; however, safety considerations and the fact that it is not interfering with operations in its present location precluded that effort.

"Jobs like this are a great opportunity for our Soldiers to put some of their skills to use. It is also a great opportunity for some of the newer divers to gain experience using the tools they have been trained on," stated Cpt. Arnold. Utilizing the U. S. Army Dive Team produced an estimated $130,000 in savings to the project, not including savings to Southwest Power of Arkansas consumers by bringing the plant back online by mid-April.

The dive team was highly professional, obviously experts in their missions. The "Sappers of The Deep" also expressed their willingness to return to Narrows for future work.

Narrows Dam was authorized as a flood control and hydroelectric power project by the Flood Control Act of 1941. At the peak of all generators, the dam can generate 27,000 kWh, and can support 21,825 homes. The dam is a feature of the comprehensive plan for the Ouachita River Basin.

STEM...(continued from page 9)

based practices. Through our partnerships with strong university engineering programs, there is opportunity to effect the curricula design and align some components with our core competencies. If we have any plans of hiring the students, it is vital that we have strong university partnerships that can help them to define their educational focus (via a specific minor or electives). Furthermore, they must have meaningful work experiences; otherwise, the return on investment is restricted. The lack of meaningful work results is of dire consequence to the student and the organization: 1. the student has no tangible, meaningful work (i.e., projects) that links him to the organization, and 2. the student is not prepared to hit the ground running upon an employment offer. Hence, the learning curve is comparable to hiring someone who did not participate in the programs. This presents a gap that we cannot afford when forty percent of our workforce is retirement eligible.

As we continue to build our bench, we must reflect on human capital (i.e., workforce) being our most significant asset. Considering the aging workforce, we must continuously assess our organization and mitigate technical competency gaps. Our workforce of tomorrow is sitting in someone's classroom today. There is no time like the present to embrace, engage and promote STEM. We must engage in partnerships with organizations such as FIRST, the local schools, colleges and universities, ROTC programs and military recruitment programs; as well as, maximize opportunities to develop our students through academic/curriculum design and effective student program oversight. STEM is the key to transcending from a "Good" to a "Great" Engineer Model.

Engineering and construction employee recognized for work, receives division award

By Patrick Moes
St. Paul District

Scott Baker, engineering and construction, was recently recognized for his work along the Mississippi River.

Baker was selected as the Mississippi Valley Division Construction Management Excellence Award recipient. The annual award recognizes construction personnel exhibiting excellence in construction management and contract administration activities.

An employee from each of the division's six districts competed for the award and Baker won with a unanimous vote. He will now compete against other division winners for the Corps of Engineers national award.

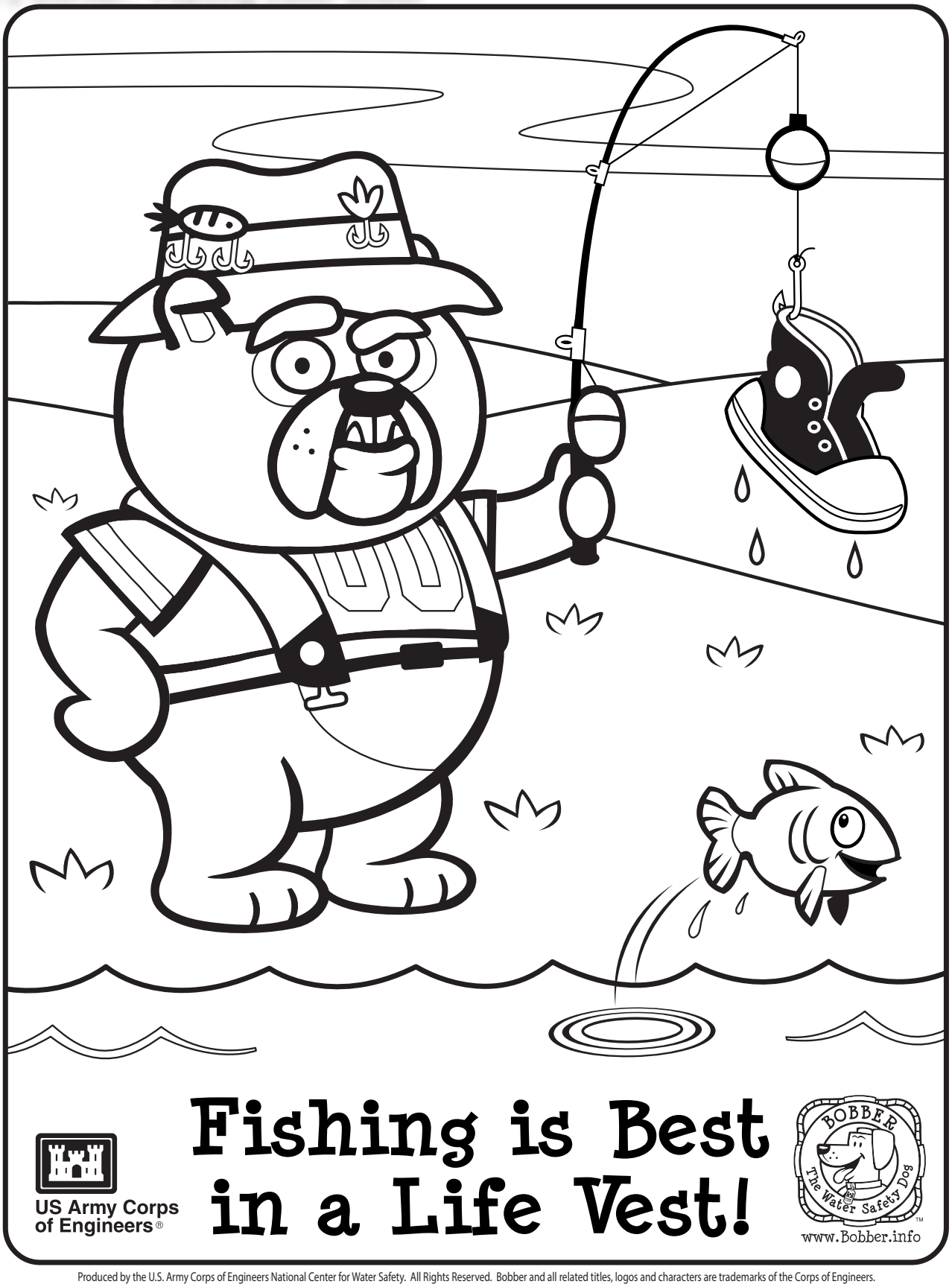
"Scott's leadership in the Upper Mississippi River Restoration Program has set the standard division wide for his ownership and commitment to provide a quality product that has exceeded our customers' expectations," said Tom Johnson, St. Paul District Eastern Area Office chief. "His professionalism and dedication to construction quality is unsurpassed and has earned the respect of our partnering agencies, contractors and district staff."

Scott Baker, St. Paul District civil engineer, was recently selected as the Mississippi Valley Division Construction Management Excellence Award recipient. Baker will now compete against other division winners for the national award.

Baker was nominated for the award, in part, for fostering a spirit of cooperation and partnership with the Upper Mississippi River Restoration Program. He has served as the contracting officer's representative for numerous projects to include the Pool 8 and 9 island construction.

Additionally, Baker serves as the assistant flood engineer for Minnesota and Iowa and performs as a subject matter expert in contract administration procedures, submittal reviews, contract modifications and negotiations.

Kid's Corner: Fishing color sheet



Around the Division

Pictured above–Brig. Gen. Duke DeLuca, MVD commander, presented Cpt. Gregory Himmel with *The Army Commendation Medal* April 2, 2014, for exceptionally meritorious service as Aide-de-Camp to the Commanding General, Mississippi Valley Division, U.S. Army Corps of Engineers from November 2012 to April 2014. Cpt. Himmel's professionalism, attention to detail and enthusiasm greatly enhanced the day-to-day operations in the Division Executive Office and facilitated the efficient movement of the Commanding General and other senior staff members throughout the Corps' area of responsibility. Cpt. Himmel's exemplary performance and selfless service are in keeping with the finest traditions of military service and reflect great credit upon him, the USACE and the U.S. Army.

Pictured below–Family members pin Cpt. Timothy R. Tracy, the MVD commander's current Aid-de-Camp, as Brig. Gen. DeLuca (far lt.) salutes Cpt. Tracy during his promotion ceremony (from 1st Lt. to Cpt.), May 2, 2014. Pictured (l. to rt.) are Cpt. Tracy's father Tom, his wife Ana, son Hunter and mother-in-law Maureen McKee.

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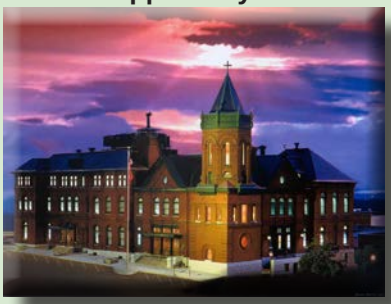
U.S. Army Corps of Engineers
Mississippi Valley Division



Division Engineer
Brig. Gen. Duke DeLuca

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