Engineering Freedom

Quarterly Review

January February March 2013

Science, Technology, Engineering & Math: The Foundation for BUILDING STRONG® in Afghanistan

Engineering Freedom

Commander
Army Col. Vincent V. Quarles

Deputy Commander
Army Lt. Col. Stephen H. Bales

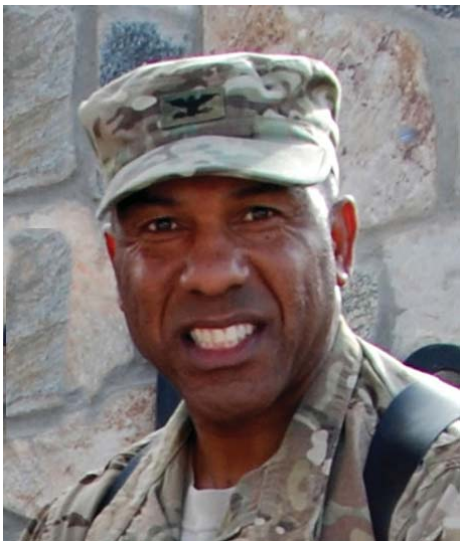
Chief, Public Affairs
Karla Marshall
COMM: (540) 722-6263
DSN: (312) 265-6263

Public Affairs Specialist
Layout & Design
Jasmine Chopra-Delgadillo
COMM: (540) 667-5705
DSN: (312) 265-6263

Engineering Freedom is a magazine of the U.S. Army Corps of Engineers Afghanistan Engineer District-South (AED-South) and is an unofficial publication authorized by AR 360-1. It is produced in the Afghanistan theater of operations. Views and opinions expressed in Engineering Freedom are not necessarily those of the Department of the Army or the U.S. Army Corps of Engineers. All photographs appearing herein are by the Public Affairs Office at AED-South unless otherwise accredited. The mission of Engineering Freedom is to support the commander's internal communication program for AED-South. It also serves as a communication tool for accurately transmitting policies, operations, technical developments and command philosophy to the AED-South team.

Contents

District Commander's Message



Army Col. Vincent Quarles, commander, Afghanistan Engineer District-South.

TAS Family and Friends,

I hope you enjoy this quarterly edition of our Engineering Freedom magazine that captures many recent district accomplishments and highlights our contributions to STEM (Science, Technology, Engineering, and Mathematics). Your proven skills within all STEM areas allow us to continue delivering facilities and other infrastructure projects across southern Afghanistan despite the numerous challenges. We could not have delivered all we have without you (solid STEM professionals) and those who support you and our efforts.

Being able to solve problems and implement solutions well are skills that only study and practical experiences can enhance. USACE remains relevant to supporting our nation's objectives (whether strategic, operational, or tactical in nature) because of you – solid professionals who willingly share your expertise and experiences as necessary to implement solid engineering solutions that transcend STEM areas.

Many of our co-workers back in the States and other STEM professionals recently participated National Engineers Week (Feb. 17-23) by hosting and/or supporting many exciting events including science fairs, robotics competitions, teacher training workshops and other mentoring opportunities. Their enthusiasm for engineering and science and willingness to volunteer may just inspire a child to pursue a STEM career. When you return home, I encourage you to also look for ways to develop and mentor future STEM professionals. I also know you will continue to mentor and share experiences across our district family as we continue to learn and grow as we deliver what we must here in Afghanistan. *(Continued on page 4).*

The 2013 National Women's History month theme is: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics"

Please help me thank and honor our own such professionals who have contributed much to STEM as highlighted within the following pages.

(Continued from page 3)

Did you know that the National Women's History month theme is: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics?" Please help me thank and honor our own such professionals who have contributed much to STEM as highlighted within the following pages. Of course, they are not alone and neither are their projects and duties uncommon.

Every day you impress me by your dedication to our mission in Afghanistan and your desire to find solutions for some of the most complex challenges faced by the Corps of Engineers. Not only do you resolve engineering and technical conflicts but you also solve logistical, and technical conflicts but you also solve logistical, personnel, movement, safety, communication, administrative and a whole host of other issues that are inherent in working in a contingency environment.

Between now and the consolidation of the districts into Transatlantic District Afghanistan (TAA) in July, the South District plans to deliver 21 more projects for the Afghan people. We must work together to meet that goal; finding and implementing solutions to the myriad of challenges we face daily are the keys to getting our jobs done. I am confident that the TAS family is up to the challenge. You are professionals in every sense of the word and I look forward to charging full steam ahead with you for the next four months!

Essayons!

Maj. Gen. Michael Eyre (center facing) , Transatlantic Division Commanding General, discusses the status of a military construction project with the South District MILCON team.

MILCON Program Manager Veronica Rife (blue shirt) along with Deputy District Commander Lt. Col. Stephen Bales (left), and Kandahar Airfield Resident Office Officer in Charge Maj. Fred Cummings, answered the general's questions Mar. 29. (Photo by Karla Marshall)

The Theater Vehicle Maintenance Facility on Kandahar Airfield is critical to the retrograde of the U.S. Army. Substantially completed in March 2013, the TVMF is a $28.5 million U.S. Army Corps of Engineers construction project which includes three open-bay buildings, a lay down yard and vehicle wash racks.

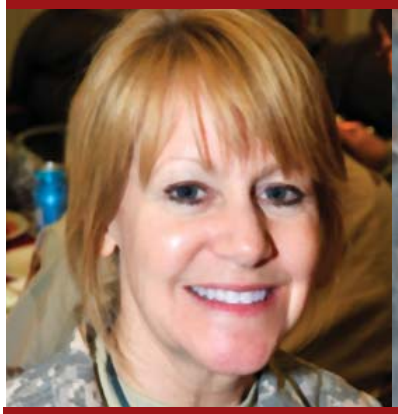
About 50 vehicles, or movable stock, can be retrofitted per day and prepared for shipment back to the United States or other military bases. (Photos by Karla Marshall)

Women Inspiring Innovation Through Imagination

M. Benningfield, quality assurance construction representative

D. Johnson, electrical engineer
S. Zelen, engineering geologist

V. Rife, civil engineer



L. Murphy, civil engineer

L. Gardner, mechanical engineer

T. Burroughs, civil engineer

USACE women embody 2013 National Women's History Month theme

Commentary by
Karla Marshall

March is National Women's History Month, the month Americans set aside to commemorate the contributions of women throughout our nation's history. National Women's History Month gives all of us an opportunity to celebrate women who have made a difference and have improved the United States through their many different interests, fields and careers.

This year's theme: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics," is the perfect theme to highlight women who work for the U.S. Army Corps of Engineers in

STEM disciplines and specifically some at the South District.

STEM and women are often not used in the same sentence. After all, "Girls are good at English; boys are good at science and math."

That commonly held attitude drove countless women to pursue careers and fields of study based not on interest but instead on perceived aptitude.

A simple Internet search on the phrase "Girls are good at English," garnered me more than 53,000 hits, with many pointing to a University of Chicago study that found female elementary students often internalize their female teachers' math anxiety which, in turn, encourages them to believe the stereotype that they're not good at STEM.

Other hits led to articles and websites that point to studies demonstrating that there is no gender difference in aptitude, only that girls need encouragement (as opposed to the "girls are good at English…" attitude) to pursue STEM careers.

As a child during the late 60s and 70s, I recall teachers telling us that we could do anything we set our minds to; but somewhere along the way, I internalized that I am better at English than at math or science despite the fact that science is infinitely more interesting and math problems have solutions! With science, one can do things – experiment with chemicals, dissect animals and watch bacteria grow in Petri dishes. Instead, I read about those things and live vicariously through my sons' higher education experiences. Who knew that polymer science could be so fun?

Sometimes I dream of developing a wonder drug, contributing to mankind's understanding of the cosmos or determining the amount of tile and grout I need to tile my kitchen floor without help from the hardware store guy.

THE 2013 THEME, "WOMEN INSPIRING INNOVATION THROUGH IMAGINATION: CELEBRATING WOMEN IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS," IS THE PERFECT THEME TO HIGHLIGHT WOMEN WHO WORK FOR THE U.S. ARMY CORPS OF ENGINEERS IN STEM DISCIPLINES.

While I may have missed my STEM calling, several women deployed to the Afghanistan Engineer District-South ignored the mantra that only boys were good at math and science and found success as engineers and technicians.

Curious, I asked Linda Murphy, Shafak Pervez, Margaret Jones and Maggie Benningfield how they decided on a STEM career. What motivated them? How did they overcome the stereotype that keeps so many women from pursuing STEM degrees? Was there some environmental influence or genetic predisposition? The answer to those questions came as no surprise and supported my hypothesis: they all share a drive to achieve, a love of problem solving

and pursued careers dominated by men because they had the support of people whose opinions mattered.

They sacrificed, struggled, defied odds and achieved their STEM goals despite roadblocks that would have stumped others. As I learned about them, I became inspired—not inspired to return to college, but inspired to support STEM initiatives for young people.

THEY ALL SHARE A DRIVE TO ACHIEVE, A LOVE OF PROBLEM SOLVING AND PURSUED CAREERS DOMINATED BY MEN BECAUSE THEY HAD THE SUPPORT OF PEOPLE WHOSE OPINIONS MATTERED.

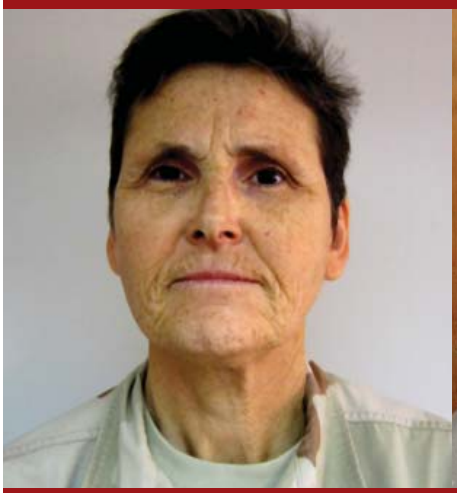
The U.S. needs the best and the brightest minds to achieve innovation and lead the world in STEM excellence; gender is not and should not be a factor. USACE supports STEM. For more information visit: http://www.usace.army.mil/stem.aspx

Celebrating Women

C. Byers, electrical engineer

D. Duncan, civil engineer

C. Hickel, civil engineer



U. Krueger, structural engineer

E. Costello, civil engineer

in Science, Technology, Engineering & Mathematics

How does Jones do it? She puts her mind to it!

Story & Photo by JC Delgadillo

How does a mother home school all four of her children, climb the professional ladder from intern to senior management and still find time to volunteer and improve lives in her community? Ask Margaret Jones, a U.S. Army Corps of Engineers mechanical engineer, currently deployed in Afghanistan.

"You've got to set the right priorities, get organized and waste no time," Jones urged.

As an Air Force brat growing up on military installations around the world, Jones received a high-quality education both on and off base; one that was supplemented by her parents' commitment to informing and inspiring their children.

Jones' father was a jack of all trades and an explosive ordnance disposal technician in the U.S. Air Force who frequently told his children, "you can do anything you put your mind to and don't let anyone tell you, you can't."

Jones' father would tinker with appliances and electronics and Margaret would join him. Jones' mother was a classically-trained pianist who began teaching her daughter how to play the piano when Jones' was five; a skill and talent Jones possesses to this day.

As a little girl, Jones dreamed of becoming a teacher or a doctor. Once in high school, an immersion program with engineers on the campus of Southern University and Agricultural & Mechanical College, a historically black college in Baton Rouge, La., inspired Jones to consider engineering instead.

Jones entered Louisiana's McNeese State University in 1977 and graduated with a

Mechanical engineer Margaret Jones has lived and worked throughout the Middle East and Asia, including Iraq and Afghanistan, where she currently serves as the deputy chief of the Engineering & Construction Division at the South District.

Bachelor's of Science in mechanical engineering. She was the only woman of color in her graduating class.

"There were not many women role models in engineering back then," said Jones, "but I remembered what my dad told me, 'you can do anything you put your mind to.'"

Jones married a U.S. Army Soldier, started a family and went to work for a petrochemical company in Louisiana. After four years at the company, Jones made the tough decision to put her career on hold and moved to Fort Richardson, Alaska, her then husband's new duty station. The highly-adaptive military brat

was used to frequent change, she said, and saw Alaska with its rebel spirit and rugged, pristine terrain, as an adventure.

Once at Fort Richardson, Jones enjoyed using the community's many resources such as the swimming pool, library and ice skating rink to keep her young children entertained. At the rink, Jones met some mothers who shared with her that they taught their children.

"Well I teach my children too, in the summer," said Jones.

"No, we home-school year round," explained the mothers.

Homeschooling is often defined as the education of children at home, typically by parents or by tutors, rather than in formal public or private school settings by formally-educated and traditionally-trained teachers.

"YOU'VE GOT TO SET THE RIGHT PRIORITIES, GET ORGANIZED AND WASTE NO TIME."

Homeschooling is popular in Alaska because of the harsh climate and sparse, dispersed population, explained Jones.

After some research and contemplation, Jones decided homeschooling was the best option for her family.

"I was not working, so I had before me this wonderful opportunity to spend quality time with my children, raising them with my values, my attention to their needs, my focus on helping them learn and succeed," she said.

The curriculum included language arts, chemistry, biology, including dissecting frogs, and Jones reveled in serving as her children's teacher, she said.

She loved teaching so much that she decided to go to Fort Richardson's education center to see about teaching adults. The center wanted instructors to teach drafting courses. After three semesters of the class not proceeding due to lack of enrollments, the education center's staff coordinator approached Jones with a question:

"My husband would like to know if you would consider working for the Corps of Engineers?"

Jones had never heard of the U.S. Army Corps of Engineers.

"Well, I home school, and my children are my number one priority, so if I were to work for the Corps, it would have to be part-time only," Jones explained.

The staff coordinator gave her an application, which Jones filled out and provided to USACE. Unbeknownst to Jones, the staff coordinator at the education center was married to the USACE district commander in Alaska.

Jones was hired as the first permanent, part-time intern at the Alaska District, which allowed her to continue homeschooling while building a career in the district's engineering division.

In 1998, Jones accepted full-time employment with USACE and along with her three youngest children, embarked on an exciting new assignment in Egypt. She served as the project engineer for construction of the International Medical Center in Cairo. Her responsibilities included inspecting various types of mechanical equipment and systems to

THE CURRICULUM INCLUDED LANGUAGE ARTS, CHEMISTRY, BIOLOGY, INCLUDING DISSECTING FROGS, AND JONES REVELED IN SERVING AS HER CHILDREN'S TEACHER.

assure compliance with plans and specifications as well as serving as a liaison between contractors, customers and the U.S. and foreign governments. Her success in Egypt led to a promotion and Jones returned to the United States to what was then called the USACE Transatlantic Program Center. As a project manager, Jones was responsible for projects in Iraq, Kuwait, Saudi Arabia and the United Arab Emirates. Jones continued to excel and in 2006 achieved the grade of Government-Schedule 15, the highest grade on the GS scale.

Over the last decade, Jones has lived and worked throughout the East and Asia, including Iraq and Afghanistan, where she currently serves as the deputy chief of the Engineering & Construction Division at the Afghanistan Engineer District-South in Kandahar. She helps oversee a division that is constructing projects, including military installations and public infrastructure, aimed and improving the security and stability of Afghanistan.

"Margaret is a joy to work with and embodies the Army values of Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage," said Perry Hubert, P.E., chief of the Engineering and Construction Division. "She is a true leader with a remarkable work ethic and requires very little supervision or guidance. She exhibits speed and attention to detail. I'm thrilled to have her as my deputy," Hubert said.

Among her dozens of awards is the prestigious USACE Bronze de Fleury Medal. The medal is awarded by the Army Engineer Association and is presented to individuals who have "…rendered significant service or support to an element of the U.S. Army Engineer Regiment."

Despite inspirational leaders like Jones, women still fall far behind men in employment in the science, technology, engineering and math fields. The U.S. Bureau of Labor Statistics reported in 2011 that although women make up about half of the American workforce, they held only 25 percent of mathematics positions and 14 percent of engineering positions. The statistics are even lower for women of color.

THE U.S. BUREAU OF LABOR STATISTICS REPORTED IN 2011 THAT ALTHOUGH WOMEN COMPRISE HALF OF THE AMERICAN WORKFORCE. THEY HELD ONLY 25 PERCENT OF MATH POSITIONS AND 14 PERCENT OF ENGINEERING POSITIONS.

Jones would like to see those statistics change.

"There are not enough women that are invited to interact with STEM professionals and visit STEM schools, like I was," explained Jones. "If young women were able to meet engineers and visit these STEM schools, they could see for themselves that they can be scientists and engineers. I hope that with my life, my experiences, my support, I've been able to encourage women to pursue engineering," Jones said.

When she's home in Virginia, Jones teaches Sunday school at church, volunteers for a domestic violence prevention and response center helping survivors heal, and has served as a member and officer of numerous associations including the Society of American Military Engineers. She also mentors youth in her church and is a proud grandmother.

USACE electrical engineer embodies National Women's History Month theme

Story by Karla Marshall

Shafak Pervez, a U.S. Army Corps of Engineers civilian electrical engineer deployed to Kandahar Airfield, Afghanistan, embodies the 2013 National Women's History Month theme: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics." (USACE Photo by JC Delgadillo).

Women electrical engineers are few in the U.S. Army Corps of Engineers. Shafak Pervez should know, she is one of them. She is also the kind of woman who thrives on new experiences that engage her mind and help other people simultaneously. For Pervez, 34, learning new things and staying busy is a priority and that's the reason she joined the USACE team.

"I get bored working on same type of projects and was looking for something that would provide variety and freedom to move around. I love the type of work USACE does;

we are everywhere!"

Born in Pakistan, Pervez immigrated with her family to California when she was 12.

"I went to middle school and high school in West Sacramento," she said. "And then on to Sacramento State University where I earned my electrical engineering degree. Learning English was her first obstacle. Fortunately, that education started in Pakistan.

"I had to take English beginning in the sixth grade," she said and by the time she moved to the United States at the beginning of her eighth grade year, she had the basics down. "I knew the alphabet and some simple phrases. My mom helped a lot because she earned a master's degree in Pakistan and needed to know English for her degree."

Her mother also encouraged each of the family's five children to pursue medical doctor degrees, but none did.

"Somehow each of us chose a different path. I was good at science and math," explained Pervez who took an electronics course during her freshman year of high school. "Taking the class was not my idea, but I enjoyed it and stayed with it."

Pervez' electronics teacher became a trusted mentor as did her high school guidance counselor. "They are the reason I became an engineer," said Pervez, who deployed to Kandahar Airfield from the USACE Los Angeles District. "I am very blessed and have always been surrounded by people who have my best interest at heart. They were compassionate but never hesitated to tell me what I needed to hear even if I didn't want to listen."

It is her mentors, some engineers; others not, who have been a constant in her adult life.

"I cannot remember a time when I didn't have a mentor to turn to," Pervez explained. "They are people I trust and can speak freely to regarding my personal and professional goals."

Pervez has achieved significant professional goals, but is not yet finished. During the last year, she passed her Professional Engineer exam and became a LEED Accredited Professional. "I am now pursuing an on-line master's degree in business administration when I'm not working," she said.

"I CANNOT REMEMBER A TIME WHEN I DIDN'T HAVE A MENTOR TO TURN TO. THEY ARE PEOPLE I TRUST AND CAN SPEAK FREELY TO REGARDING MY PERSONAL AND PROFESSIONAL GOALS."

At the Afghanistan Engineer District-South, Pervez reviews project designs and provides technical services to the district's field offices throughout south and west Afghanistan. She arrived in Afghanistan in June 2012, but this is not her first deployment.

"I deployed the first time in 2010 for one year and was the lead electrical engineer with the quality assurance branch," said Pervez. Although she did not deploy to fill that role, her work ethic, experience and skill led to a recommendation for the job and ultimately an offer. "How could I have said, 'no,' she exclaimed. "I got to teach Afghans electric fundamentals and safety

and performed construction site inspections and learned at the same time."

To Pervez, it is the challenge and accomplishment that drive her to success. Her current challenge is learning about high voltage electric systems so that she can be the best at her job.

"To my peers, I'm the subject matter expert, but there is so much that I do not know because high voltage is a specialized field and I have little experience in it."

Pervez acknowledges that it is difficult to admit she doesn't know some things and will have to get back to her coworkers with answers. But, she says, "when faced with something I don't know - first step is to acknowledge that I don't know it and second is to go learn it."

Shafak Pervez inspects a generator control panel at the Kunar Prison. USACE engineers assist provincial reconstruction teams and Afghan engineers by providing specific expertise in engineering fields. (Photo by: 1st Lt. Nicholas Mercurio).

"DON'T EVER GIVE UP! FOLLOW YOUR HEART. ASK A LOT OF QUESTIONS AND IF YOU STILL DON'T UNDERSTAND, ASK AGAIN."

That attitude is why Pervez embodies the 2013 National Women's History Month theme: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics."

"I like to focus on smaller groups, people who are around me," she shared. "Sometimes it means listening to a person, acknowledging her thoughts and ideas and just letting her know that someone cares. Small things make a huge difference. I give of myself freely and often. I always make myself available to friends and anyone who may need my help."

It can be difficult for women in engineering career fields, but Pervez said that to be successful, persistence is the key.

"Don't ever give up! Follow your heart. Ask a lot of questions and if you still don't understand, ask again."

Breaking down barriers, building up respect

Story by
JC Delgadillo

Margaret Benningfield, a quality assurance construction representative with the Afghanistan Engineer District-South, inspects construction at an Afghan National Security Forces construction site. (USACE Photo by JC Delgadillo).

Tell the average person you work in construction and images of strenuous physical labor and heavy equipment in the harsh outdoors likely come to mind. Not exactly the setting in which you would expect to find a kempt, petite mother of three. Yet it is precisely the work environment Margaret Benningfield, a quality assurance construction representative with the South District, enjoys most, she said.

Benningfield is one of the few American women who earn their livelihood in the construction trades. According to 2011 estimates by the Bureau of Labor Statistics, only about three percent of all American workers in construction are women.Benningfield bucks the status quo.

"When you think of construction, people automatically think of men with power tools and hours of hard physical labor. The construction environment is a lot less cultured than an office environment, so I can see why most women would not find it appealing, but I love construction and I just let my work speak for itself. The only way to gain respect is to prove that you are

knowledgeable and that you can do the job well," said Benningfield.

From environmental remediation to emergency response to deploying to Afghanistan to oversee workmanship on Afghan National Security Forces and infrastructure projects, Benningfield uses her construction experience to deliver high-quality services and facilities.

"Maggie is extremely dedicated to doing a great job on every project she is a part of," said Jay Fowler, chief of the Construction Branch at the Afghanistan Engineer District-South.

"I have been fortunate to hold positions that, I feel, have benefitted our customers and have helped me increase my skills too," Benningfield said.

And yet, quality assurance in construction was not the career Benningfield had in mind.

"I was committed to being a wife and mother," she said.

Benningfield's youthful, athletic appearance belies the fact she has three adult sons and two grandsons. An avid runner,

Benningfield participates in several running events for charities. The two closest to her heart are St. Jude Children's Research Hospital and the American Cancer Society, she said.

Benningfield inspects concrete at a construction site in Kandahar province, Afghanistan. (USACE Photo by JC Delgadillo).

About 15 years ago, her then husband had a job requiring a great deal of moving around and Benningfield followed him from Texas, her home state, to Missouri. She needed a job and found one as a quality control representative. Detail-oriented, sharp-eyed and meticulous by nature, Benningfield thrived at quality control. After many years in the field on construction sites, she was promoted to a quality assurance construction representative. In that role, Benningfield makes sure construction complies with established plans and specifications, codes and safety requirements. She also conducts preparatory, initial, follow-

up and final inspections on construction. During the preparatory inspection, which is performed prior to the start of construction, Benningfield reviews design drawings and confirms all required materials and equipment meet required specifications and have, in fact, been delivered to the job site. During the initial inspection, which is performed after the first segments of the site are constructed, Benningfield inspects and verifies the quality of workmanship. She also verifies that the contractor's preliminary work is in compliance with designs and contract

Benningfield participates in a run to benefit Wounded Warriors at the Warrior Recovery Center at Kandahar Airfield. (USACE Photo by Karla Marshall).

Benningfield inspects construction at an Afghan National Security Forces construction site. (USACE Photo by JC Delgadillo).

requirements. Further along in a project's development, she conducts follow-up inspections a few times a week to ensure continued compliance. Inspections culminate with the final one, where all remaining issues, if any, are resolved just prior to the project being turned over to the customer or end user.

"I've watched Maggie as she inspects work. She sees the little things. She is always taking notes and has a great ability to recall previous conversations and work completed. It's very

hard for anyone to fool Maggie," said Army Lt. Col. Eric Bishop, Kandahar Area Office officer in charge.

While women are few and far between on construction sites in the U.S. they are virtually non-existent in Afghanistan, with

"You can't control what others do; you can only control how you react."

the exception of women like Benningfield.

"Maggie knows construction and she knows her job and that gives her confidence. She may be the only female out there, but she won't let anyone talk down to her or disrespect her. If the work in place is unsatisfactory, she will require it to be fixed before any more work can proceed," said Bishop.

In Afghanistan, where access to adequate supplies and a highly-skilled workforce is not easy due to years of hostilities and neglect, Benningfield provides some mentoring to Afghan contractors on the job sites. She visits sites almost daily and when she sees a deficiency or error, she brings it to the attention of contractors immediately; contractors then provide corrective action plans to bring the construction into compliance.

"Men really do not know how to react to me or how I am going to react to them. Most have had very little experience working with a woman in this position," Benningfield said. "This has actually worked to my advantage. In most cases, contractors and end users do not try to influence me or my decisions," she said.

And yet working in construction has not been a piece of cake for Benningfield either.

"There have been a lot of struggles with working in a male-dominated field. Sometimes things have been the same way for so long, it's hard for people to imagine anything different," she said.

One of her favorite mottos inspires Benningfield to continue regardless of struggles:

"You can't control what others do; you can only control how you react."

Memories of the people she has helped through her livelihood motivate her to continue excelling in the field.

"I was in Alabama in 2011 as part of an emergency response team removing debris from multiple tornadoes that had ripped through the state. I was humbled by what I saw. The devastation was much more extensive than I could have ever imagined. My first assignment was supervising cleanup of debris along roadways. Later, I conducted assessments of personal property damage and

"This is not just another job. I feel a sense of honor to be here with our soldiers."

destruction. This required going to many residences and meeting many people in need of help removing debris from around their homes. Each individual I met had a story to tell about their personal ordeal. They described to me the emotional and physical pain they had endured from the moment the tornadoes had touched down until the moment I had come to assist them," Benningfield recalled. "As they shared their heart-wrenching stories, I saw their belongings, their homes, everything

they had spent a lifetime building; gone! It was all gone and all they had left was their faith and each other. It was humbling helping them clear a pathway to start their lives over," Benningfield said.

Benningfield draws pride from serving as a Department of the Army Civilian. She deployed to Kandahar from the U.S. Army Corps of Engineers St. Louis District.

"This is not just another job. I feel a sense of honor to be here with our Soldiers. I may not be serving in the same capacity as them, but I feel like I am doing what I can do to fulfill our mission here," she said.

She draws inspiration from her late mother, who Benningfield said was her biggest supporter.

"She inspired me to be a strong independent woman who doesn't give up without exhausting all options," Benningfield said.

As for mentors, "Uncle Thurman" was one of the major influences in her life.

"Uncle Thurman seemed to have discovered a way to slow down time. He showed me how to appreciate the little things in life and to not take things for granted."

On the job, Sonny Roberts, a now-retired construction manager who worked for the USACE, inspired Benningfield to increase her education and training.

"Sonny provided insight, methodology and advice to help me through challenging projects."

As for motivators, the best are her children, said Benningfield.

"For me, motherhood will always come first and my sons have been a great source of motivation and support. I simply couldn't have made it this far without their encouragement. I see myself as a role model for my children, 'if mom can do it, I have no excuse not to."'

> "AS THEY SHARED THEIR HEART-WRENCHING STORIES, I SAW THEIR BELONGINGS, THEIR HOMES, EVERYTHING THEY HAD SPENT A LIFETIME BUILDING; GONE! IT WAS ALL GONE AND ALL THEY HAD LEFT WAS THEIR FAITH AND EACH OTHER. IT WAS HUMBLING HELPING THEM CLEAR A PATHWAY TO START THEIR LIVES OVER."

The downside to working in construction, regardless of gender, Benningfield cautions, includes weather, anything from the sweltering heat of summer to the extreme cold of winter, exposure to hazards and the construction industry's dependence on financial trends.

"Construction is challenging, but it is rewarding! You leave your creations behind as a testament to your accomplishments. You can drive by a building, a bridge or a lock and say, 'I helped build that," said Benningfield. "That's a great feeling."

She traded business suits for combat boots

Story by Karla Marshall

What made Linda Murphy trade in a pair of designer pumps for some steel-toed boots? A passion to use her expertise to help Afghans improve their quality of life, said the U.S. Army Corps of Engineers Afghanistan Engineer District-South program manager.

Murphy, the Water and Infrastructure Project Management Branch chief, is a civil engineer who embodies the 2013 National Women's History Month theme: "Women Inspiring Innovation Through Imagination: Celebrating Women in Science, Technology, Engineering and Mathematics."

Competition spurred Murphy from a young age; she was highly competitive in science and math. "My best friend and I were always competing in math grades and science fairs," Murphy said.

Those experiences taught her that working hard, living up to promises and commitments, and giving 110% is normal for her.

So following her dream was not scary or particularly difficult.

"I liked architecture but my best friend's dad was a Purdue University engineering alumnus and he convinced many of us from our high school to go into engineering at Purdue," Murphy said.

Linda Murphy met with Afghan Minister of Energy Ishmael Khan as part of her duties as the Afghanistan Engineer District-South Water and Infrastructure program manager. (Courtesy Photo).

Pursuing engineering at Purdue was a logical choice for Murphy who said she figured out in high school that she wanted to be self-sufficient. A STEM degree would help ensure that her future was wide open and she would always be employed, she reasoned.

After earning her Bachelor of Science degree in civil engineering from Purdue University in West Lafayette, Ind., Murphy began her career as an engineer with the USACE

Louisville District in Louisville, Ky., in 1983.

Working her way up through the ranks at her home district, Murphy was chief of the Civil Project Management and Programs Branch of the Louisville District when she deployed to Kandahar Airfield in January 2012.

"Now that I had gotten both my daughters off to college as fairly self-sufficient women, I decided to deploy to provide assistance to the women and men of the coalition forces and particularly to the women and men of Afghanistan," she explained. "I knew that I could contribute to the mission and grow as a person at the same time."

One year later Murphy doesn't regret that decision and opted to extend an additional nine months to manage one of the South District's most challenging programs. She leads a team of project managers who oversee construction projects that directly contribute to the improvement of Afghanistan's infrastructure. Water and electricity availability, bridges and roads, university facilities and medical clinics all fall under her leadership.

"I have never been one to back down from a challenge," she explained. "Working in Afghanistan has broadened my experiences, allowed me to do something outside my comfort zone, and given me a greater appreciation for what I have back home."

"I KNEW THAT I COULD CONTRIBUTE TO THE MISSION AND GROW AS A PERSON AT THE SAME TIME."

In addition to a successful career with the Corps of Engineers, four of Murphy's best female friends are also engineers at the Louisville District. Having that core group of friends made her career rewarding.

"FOR YOUNG WOMEN ENGINEERING PROBABLY DOESN'T SEEM LIKE A VERY GLAMOROUS CAREER, BUT IF THEY ARE GIVEN OPPORTUNITIES TO SEE ENGINEERS AT WORK, ASK QUESTIONS AND ENCOURAGED TO ENJOY MATH AND SCIENCE, MORE WOULD PROBABLY SHOW INTEREST.

"For young women engineering probably doesn't seem like a very glamorous career, but if they are given opportunities to see engineers at work, ask questions and are encouraged to enjoy math and science, more would probably show interest," Murphy explained. "I am grateful that my core group of friends shares a similar background with me. As women who are engineers, we look for opportunities to mentor younger women and share our careers with them."

The important thing is to be passionate about what you want to do, said Murphy. For her, coming to Afghanistan has enabled her to continue her passion. She believes that we are all here for a common purpose, a common goal which emulates the Corps of Engineers motto – Essayons, which means "Let Us Try."

"We are daughters, sisters, aunts, nieces, mothers, and even grandmothers – coming together here for one cause – to make a contribution for a better future for not only the women of Afghanistan but for everyone here," Murphy said. "And like our Corps motto states – We will try. We will try our hardest."

Putting family first results in rapid rise through ranks

Story & Photos by
JC Delgadillo

Elizabeth Blackburn celebrated her recent promotion to master sergeant in February 2013. Blackburn has served in the Army for 15 years and credits her rapid rise through the ranks to her discipline, competence and willingness to seek out challenging assignments others shy away from.

More than two decades ago, Elizabeth Blackburn witnessed something no young child should ever have to experience: the death of a parent.

"When they fired off their rounds, my heart pounded; I was so frightened," said Elizabeth, recalling the 21 gun salute at her father's funeral.

She was 10 years old.

Soldiers in their dress uniforms, the bugler playing Taps and the folded flag left a lasting impression on the young Elizabeth; one that would lead her to enlist in the U.S. Army in 1998. Now 33, Blackburn is a master sergeant.

"What I love most about being a noncommissioned officer is training, leading and mentoring other Soldiers so they, too, can become the

leaders the Army and the nation needs them to be," said Blackburn.

She credits her rapid rise through the enlisted ranks in part to her discipline, competence and willingness to seek out challenging assignments others shy away from.

"I've experienced so many foreign cultures and traveled to so many different countries over the course of my 15 years in the Army, and that has greatly enhanced my knowledge and enjoyment," she said.

That she has made the Army a fruitful career is a bit of a surprise to Elizabeth, since her original plan called for just one enlistment, then off to college.

"What I love most about being a noncommissioned officer is training, leading and mentoring other Soldiers so they, too, can become the leaders the Army and the nation needs them to be."

"I never had any intention of staying in the Army beyond my initial enlistment until I met Sgt. Clarence Blackburn. He showed me what a difference a good NCO can make in a Soldier's life and how the Army can transform ordinary people into extraordinary leaders," she said.

Sgt. Clarence Blackburn went on to become Cpt. Clarence Blackburn, but not before becoming Elizabeth's husband.

"Meeting him was the most incredible day of my career and my life. He has encouraged me in countless ways, not just professionally, but

Elizabeth Blackburn celebrated her recent promotion to master sergeant in February 2013. She credits her rapid rise through the ranks to her discipline, competence, willingness to seek out challenging assignments and her husband's love and support.

personally too."

With her husband's support, Elizabeth earned a Bachelor of Arts degree in human resource management despite serving fulltime,

"The Army can transform ordinary people into extraordinary leaders."

participating in Army training and operations around the globe and fulfilling her most important job: mothering the couple's three children.

While Elizabeth is currently on deployment, serving as the Afghanistan Engineer

District-South logistics non-commissioned officer in charge, Clarence tends to the daily needs of Harley, 14, Kaley, 9, and Zachary, 5. This marks Elizabeth's third combat tour.

"At times it can be very difficult for deployed mothers, but having a husband I can rely on is very helpful. I am amazed by my husband's love for our family."

Commander of the Afghanistan Engineer District-South Col. Vincent Quarles places the Army master sergeant rank insignia on Elizabeth Blackburn's uniform during her promotion ceremony in February at Kandahar Airfield.

"At times it can be very difficult for deployed mothers, but having a husband I can rely on is very helpful. I am amazed by my husband's love for our family," Elizabeth said.

She cites her husband as her chief mentor.

"He has guided me through my military career and without him I'm not sure I would have achieved the accomplishments I have today."

Elizabeth encourages young people to consider the military as an option for life after high school, she said.

"Naturally, I lean toward the Army, so when I mentor youth I do talk about the Army a lot, but I think there is a branch of service for nearly everybody and I encourage folks to explore all their options."

When she's home in Virginia, Elizabeth revels in family fun time with her three or four kids, depending on whether or not you count her husband as a kid, she said through a smile.

"Our family participates in soccer, basketball, swimming, tennis, volleyball and we love just hanging out with each other and our friends."

The Blackburn family has also participated in Habitat for Humanity and was selected by Wreaths across America to lie wreathes during ceremonies at Fort Bliss.

For a young woman who lost her father in childhood, family is her most cherished possession, Elizabeth said. The rewarding career, although important, comes second. Thanks to the love and support of her husband, she can have both, she said.

Clarence Blackburn is promotable and slated to become a major soon and Elizabeth was promoted to master sergeant last month. Her goal is to become a command sergeant major as soon as viable, she said.

She took a leap of faith and landed strong

Story by JC Delgadillo

Charise Byers, an electrical engineer with the Afghanistan Engineer District-South in Kandahar is helping to complete crucial public infrastructure projects that will improve the quality of life for Afghans. (USACE Photo by JC Delgadillo).

Many agree a high-quality education is a commanding force for personal and professional development. It's no wonder then why many parents seek the very best education for their children. Charise Byers is the beneficiary of a mother and father who cared deeply about providing their daughter with a great education, one that led her to excel in science, technology, engineering, math (STEM) and dance. Byers is a young electrical engineer with the Afghanistan Engineer District-South in Kandahar where she also inspires audiences with her liturgical dance performances.

Her interest in STEM is only rivaled by her fascination with dance. She uses both to enhance the lives of others.

"My parents showed me what hard work, determination, and caring for others brings to bear. They have instilled in me qualities I hope to one day pass along to my future

children," said Byers.

Byers has taken it upon herself to use her engineering education and experience to help children improve their understanding of and increase their excitement for STEM. When home in Maryland, Byers tutors and mentors youth through the local Job Corps. The program is an educational training initiative that helps youth learn a trade, earn a high school diploma or GED, find a good job or go to college.

"I have a strong desire to help young people improve their lives," said the Morgan State University graduate.

Charise Byers, an electrical engineer with the Afghanistan Engineer District-South is an avid dancer. "Dance will always be a part of my life, as will engineering," Byers said. (Courtesy Photo).

Located in Baltimore, Morgan State is Maryland's largest historically black college. Although Morgan State consistently ranks among the nation's top public universities in U.S. News and World Report's annual "America's Best Colleges" edition, the university was not Byers' first choice.

"I had my heart set on Julliard," she said.

Byers applied to the legendary performing arts conservatory and was invited to audition.

"I survived three cuts and when the final list was posted, my name wasn't on it," she lamented. "It was my first true experience with rejection, and I didn't want to dance anymore."

In addition to the arts, Byers' steadfast parents encouraged their daughter to explore math and science because they believed

HE KNOWS SO MUCH ABOUT ENGINEERING AND LEADING AND IS SO HUMBLE TOO. HE IS ALWAYS WILLING TO SHARE WHAT HE KNOWS AND GUIDE AND ADVISE YOUNGER ENGINEERS. THAT QUALITY IS INSPIRING AND HONESTLY, I STARTED WORKING HARDER, HOPING TO BECOME AS KNOWLEDGEABLE AS JOHN IS."

Charise Byers, an electrical engineer with the Afghanistan Engineer District-South participates in a Mardi Gras celebration dance routine at Kandahar Airfield Feb. 12, 2013. Byers has studied danced since she was 7 years-old. (USACE Photo by JC Delgadillo).

those courses would lead to many job opportunities and an interesting life filled with innovations, she said.

Byers launched her backup plan and enrolled in Morgan State University's Clarence M. Mitchell, Jr. School of Engineering and pursued electrical engineering.

"I have a love of learning and problem-solving, so engineering is a good fit for me," Byers said.

Byers did not let the hammering defeat of not gaining entry into Julliard keep her down. She excelled in academic and extracurricular pursuits, including dance. She even was awarded scholarships to attend summer dance camps, and choreographed routines for Morgan State University's Dance line which performs with the "Magnificent Marching Machine," the University's official marching band. Byers continued to hone both her dance and engineering skills and graduated with a Bachelor of Science degree in electrical engineering and also accepted several leadership positions in various dance ensembles throughout the greater Baltimore area.

"I HAVE A STRONG DESIRE TO HELP YOUNG PEOPLE IMPROVE THEIR LIVES."

In 2008, Byers accepted fulltime

employment with the U.S. Army Corps of Engineers Baltimore District. This time it would not be her parents, but rather a senior colleague, who would encourage Byers to continue pursuing excellence in engineering.

"John Kelley, an electrical engineer with decades of experience took me to visit a large military construction site at Fort Meade several years ago," she explained. "He guided me through the site with a meticulous eye, inspecting, observing. Over the course of our time together he shared his lessons learned and recommended actions I could take to build a solid career. He knows so much about engineering, leading and is humble as well. He is always willing to share what he knows and guide and advise younger engineers. That quality is inspiring and , I started working harder, hoping to become as knowledgeable as John Kelly."

Byers volunteered to deploy to Afghanistan to achieve her goals. Getting out of her comfort zone and increasing her experience by working on challenging, interagency projects will make her a better engineer, she said. With no prior military experience, Byers was a bit apprehensive about living and working in a combat zone, but she drew strength from her family.

"My entire family serves as encouraging mentors, from my grandparents to my cousins and definitely my parents. It's like the saying; it takes a village to raise a child. They are loving, but firm when needed. They are always honest regardless of the situation and that's why I love them. They encourage me to strive harder. I continuously work hard to make them proud," Byers explained.

"MY ENTIRE FAMILY SERVES AS ENCOURAGING MENTORS. FROM MY GRANDPARENTS TO MY COUSINS AND DEFINITELY MY PARENTS. IT'S LIKE THE SAYING; IT TAKES A VILLAGE TO RAISE A CHILD. THEY ARE LOVING, BUT FIRM WHEN NEEDED. THEY ARE ALWAYS HONEST REGARDLESS OF THE SITUATION AND THAT'S WHY I LOVE THEM. THEY ENCOURAGE ME TO STRIVE HARDER. I CONTINUOUSLY WORK TO MAKE THEM PROUD.

That attitude and commitment to excellence has resulted in Byers' laboring on crucial public infrastructure projects, like the Southern Electrical Power System Kandahar (SEPS) project that when complete, will improve the availability of electricity for nearby Kandahar City residents.

After her duty day, Byers serves as an avid member of a community of faithful at Kandahar Airfield and choreographs and performs liturgical dance.

"It's one way I can express my joy and faith with the wider community," Byers said.

MLK: HONORING THE DREAM

Afghanistan Engineer District-South Commander, Army Col. Vincent Quarles was the keynote speaker at the 2013 Martin Luther King, Jr. Observance Day. Quarles used the oppportunity to remind the audience that service to fellow man and doing your best regardless of your job or position was high on Dr. King's list of character traits to be emulated. (USACE Photo by Karla Marshall).

USACE builds culture of safety in construction

Story by JC Delgadillo

A fall through a fragile roof, a collapsed trench engulfs workers, a poorly-maintained crane drops steel columns on a laborer's head; these are just a few of the fatal accidents reported in the international construction industry in recent years - accidents Jeff Ice works hard to prevent.

As a safety and occupational health specialist who deployed to Kandahar from the U.S. Army Corps of Engineers New York District, Ice's mission includes training and mentoring Afghan construction industry workers in safety and occupational health.

USACE is overseeing construction of public infrastructure including roads, hospitals and military installations in Afghanistan.

In many cases, Afghan-owned and operated firms build the infrastructure.

Construction is one of the most dangerous industries worldwide.

Safety and occupational health standards in developing nations typically lag behind those in developed ones according to the International Labour Organization, a United Nations agency with government, employer and worker representatives. In Afghanistan, USACE safety and occupational health specialists inspect job sites, the related environment and equipment; and observe labor practices to promote adherence to safety regulations.

Jeff Ice (right) a safety and occupational health specialist who deployed to Kandahar from the U.S. Army Corps of Engineers New York District, mentors an Afghan construction contractor. (USACE Photo Illustration by JC Delgadillo).

Ice, who holds a Master of Science in safety management, is a former construction worker who survived a life-altering fall on the job that resulted in physical disability.
He is passionate about protecting workers health and safety and meets with construction contractors quarterly to share and reinforce knowledge during occupational health and safety mentoring sessions.

"Tragic incidents and accidents in the workplace and the consequences of such events have provided us with numerous lessons learned," said Ice to a

group of Afghan and Turkish construction contractors at Forward Operating Base Lindsey during a recent mentoring session. "If we can recognize hazards involved in construction and, more importantly, foster a culture of prevention, we can and will save lives."

"ANYTIME AN EMPLOYEE CAN HELP THEIR COMPANY OPERATE MORE EFFICIENTLY, THAT'S A GOOD THING. PREVENTING FATALITIES, ACCIDENTS AND LOST DAYS HELPS A COMPANY'S BOTTOM LINE."

Over the course of the four-hour training, Ice shows instructional safety videos, engages participants in case study evaluations and quizzes them about safety and occupational health knowledge. Topics include fall protection, electrical work, trench safety, collapsing materials, explosions and fires, exposure to harmful substances, transportation accidents and more. Ice also emphasized the economic benefits of maintaining a good safety record.

"While participants might not be responsible for the financial management of the companies they work for, anytime an employee can help their company operate more efficiently, that's a good thing," noted Ice. "Preventing fatalities, accidents and lost days helps a company's bottom line."

What can be done to reduce risks to construction workers? Taking feasible steps to lessen exposure to known hazards is a start, said Ice.

That includes providing workers with the proper personal protective equipment such as safety shoes, hard hats, safety glasses and hearing protection. For high-risk activities like working at heights above six feet, trained workers equipped with safety harnesses, properly-maintained fixed or mobile platforms or scaffolds equipped with standard guard rails should be used.

"The training we participated in involves many of the issues workers experience at job sites daily," said Dost Mohammad, an Afghan civil engineer and contractor working on an Afghan National Security Forces construction project in Kandahar.

"IF WE CAN RECOGNIZE HAZARDS INVOLVED IN CONSTRUCTION AND, MORE IMPORTANTLY, FOSTER A CULTURE OF PREVENTION, WE CAN AND WILL SAVE LIVES."

Beyond simply following regulations, the real challenge is adopting a culture that values safety and seeks to reduce risks whenever possible, even if it means delaying construction until deficiencies can be corrected, explained Ice.

"We want to do the right thing ... protect workers and make construction sites safer," said Mohammad.

Ice stressed that mentoring sessions support that goal.

An Afghan civil engineer contracted by the U.S. Army Corps of Engineers instructs fellow Afghan engineering professionals and paraprofessionals during a training session in Kabul, Afghanistan. USACE has contracted about 400 local workers to facilitate completion of construction projects in Afghanistan. (Courtesy Photo).

Integrating Afghans into USACE Project Delivery Teams

Story by JC Delgadillo & Todd Lyman

The U.S. Army Corps of Engineers, along with its Afghan partners, is strengthening the security and stability of Afghanistan by constructing both defense and public infrastructure in the nation.

Since security and stability are linked to economic development, USACE procures Afghan goods as well as services whenever the acceptable standards for security, quality, price and reliability are met. Contracting Afghan engineering professionals as well as paraprofessionals and integrating them into USACE project delivery teams has been vital to successfully completing construction projects in Afghanistan.

Many Afghan personnel possess a bachelor's degree in an engineering discipline and are fluent in English as well as Dari, Pashto and other languages spoken in Afghanistan, noted Nabil Abourialy, a USACE registered professional engineer who serves as the senior civilian at the Herat Area Office in western Afghanistan.

In Fiscal Year 2012 alone, USACE completed 207 infrastructure projects in Afghanistan worth nearly $1.4 billion and awarded 308 construction projects valued at nearly $2.26 billion.

USACE has contracted about 400 Afghan engineering professionals and paraprofessionals combined thus far, and USACE personnel at field offices have requested more, explained Stephen A. Rivera, chief of USACE's Kabul-based ANSF Operations and Maintenance Division.

"The increase in requests for Afghan engineers is testimony to their value to the team," said Rivera.

Beyond serving as translators, most of the Afghans USACE employs, via contracts, are graduates of engineering programs at Kabul or Herat Universities and some are alumni of the Afghanistan Technical Vocational Institute, a coeducational, vocational learning center in Kabul.

Yama, a recent civil engineering graduate of Kabul University who has been working with USACE since 2010, explained that USACE has provided him the opportunity to put the theory he learned in college into practice in the real world.

"Straight out of university, I worked for a prime contractor who was performing work for the Corps. I learned much about USACE submittals and drawings and decided to apply for a Corps (contractor) position when I heard of an opening because I wanted to learn even more," Yama said.

He was hired by Abdul, a fellow Afghan engineer who graduated from Kabul University and was contracted by USACE several years ago. Abdul is the lead Afghan engineer at the central resident office, part of the USACE Kabul Area Office.

"When we hired Yama, we had more than 20 applicants. Yama was hired along with five others. It was very competitive and we had many good candidates," explained Abdul. "I looked for experience, knowledge and English ability. Some had good engineering knowledge, but poor English skills. Others had good English skills but their engineering knowledge wasn't as good. Yama was well-qualified."

After completing a USACE-sponsored course that focuses on compliance with globally-recognized construction standards, safety and occupational health as well as

"THE INCREASE IN REQUESTS FOR AFGHAN ENGINEERS IS TESTIMONY TO THEIR VALUE TO THE TEAM."

USACE business processes, the contracted Afghan engineers may work as quality assurance representatives on the ground at construction sites, may develop cost estimates and construction schedules and may research local market pricing. Some have risen up the ranks and now supervise and mentor other Afghan personnel and even provide some senior-level project management services. Perhaps most vital to completing construction projects, is their service at remote sites, inaccessible to American engineers. It is there that the Afghan technical experts provide construction oversight, on the ground, ensuring compliance with designs and specifications and the project's contract. They check on workmanship to make sure it is satisfactory and they report back to USACE, providing photography, video and

professional assessments about progress on construction.

"Afghan professionals are an essential part of the team," said Abourialy. "Their knowledge, skills and abilities rival American engineers and while they may be learning from us, we are also learning about how to operate in their homeland."

A two-way mentoring process, beneficial for both Afghans and Americans is happening during the course of construction, explained Jerad McIntyre, a USACE civil engineer in his twenties who served as the project engineer on a recently completed medical facility in Shindand, Herat province.

"AFGHAN ENGINEERS ARE WILLING TO RISK THEIR LIVES TO BUILD PUBLIC WORKS BECAUSE THEY BELIEVE NEW AND IMPROVED ROADS, HOSPITALS, WATER AND ENERGY PROJECTS MAY SERVE TO HELP AFGHANS ACHIEVE A BETTER QUALITY OF LIFE."

Of his similarly-aged Afghan counterpart, McIntyre remarked, "working alongside Shafi and delivering a high-quality facility that may improve the health of so many people has been a significant experience in my life. This facility has helped Afghans help themselves and will continue to help Afghans for years to come."

Shafi served as the Afghan project engineer contracted by USACE to make sure workmanship complied with designs and specifications and to facilitate progress. Like many of the projects for which USACE has oversight, an Afghan-owned and operated firm constructed the facility.

"Projects like the hospital are useful to everyday, ordinary people and strengthen the relationship between Afghans and Americans," explained Shafi.

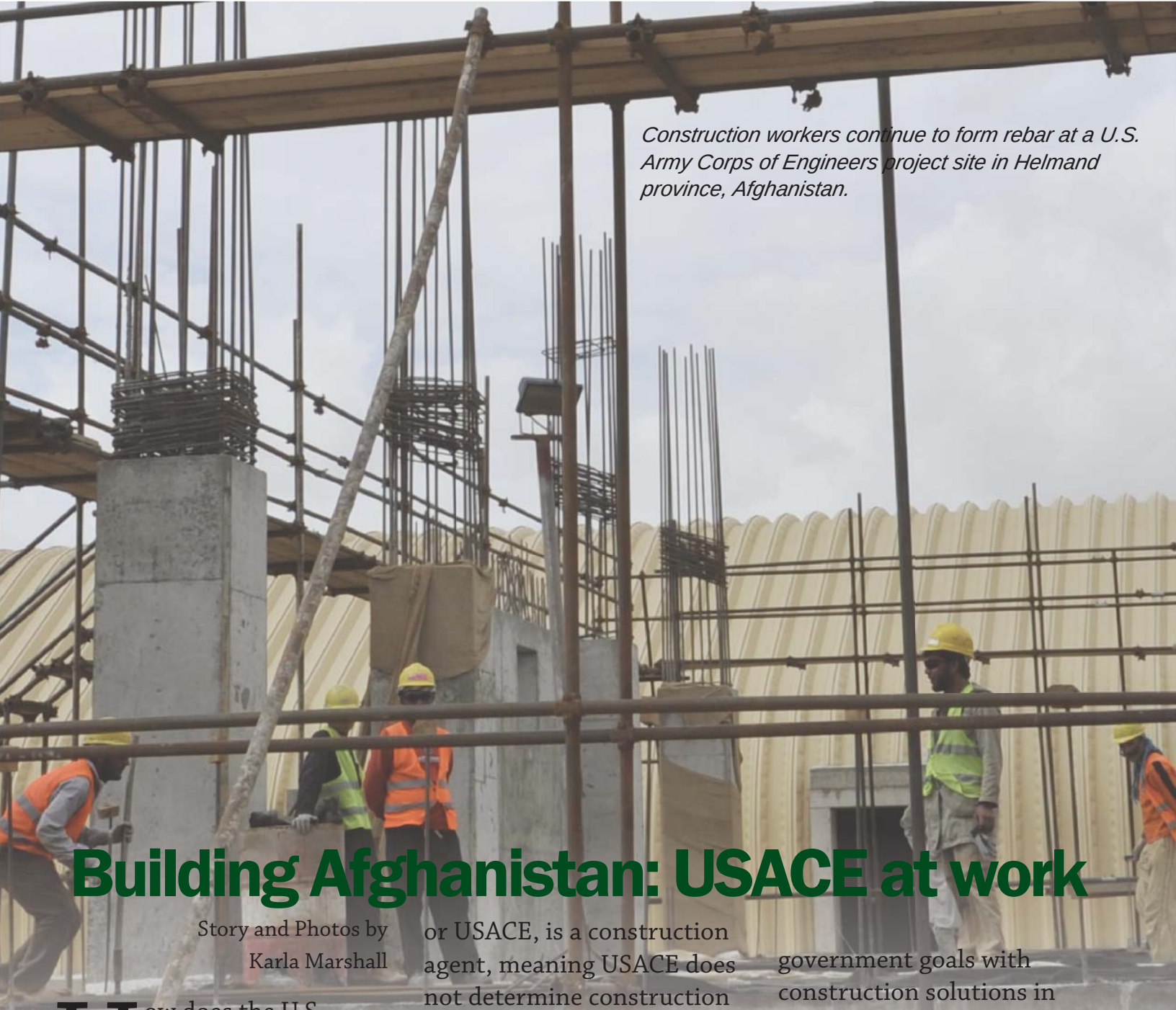
Afghan engineers are willing to risk their lives to build public works because they believe new and improved roads, hospitals, and water and energy projects may serve to help Afghans achieve a better quality of life, he said.

"I hope there will be more public works projects that will improve the lives of ordinary Afghans," Shafi said.

Of security forces facilities, Tariq, another Afghan engineer, said, "when the Taliban left Herat, we just had one inadequate army base in the north of the city. We had no other police departments, no security forces buildings. Now we have much better facilities and forces. People in my neighborhood feel safe because they are actually safer."

While a sense of safety may encourage Afghans to send their children to school, start businesses and plan for the future, Americans will not be in Afghanistan forever, thus developing skilled Afghan workers capable of designing, constructing and maintaining their own infrastructure is crucial to making sure stability gains endure. Without integrating Afghan engineers into USACE project delivery teams, some of that infrastructure might never have been built.

Editor's note: Afghan personnel preferred the use of their first names only.



Construction workers continue to form rebar at a U.S. Army Corps of Engineers project site in Helmand province, Afghanistan.

Building Afghanistan: USACE at work

Story and Photos by
Karla Marshall

How does the U.S. Army Corps of Engineers oversee construction in Afghanistan? Who decides the scope, design, location or budget of the projects? The answers to those questions are not simple, neither are the steps involved in bringing projects to completion.

Generally speaking, the U.S. Army Corps of Engineers, or USACE, is a construction agent, meaning USACE does not determine construction needs or hire construction workers. Instead, the Corps of Engineers translates U.S. Government and Department of Defense requirements into feasible projects and awards construction contracts to contractors and builders that will satisfy the government's needs.

In Afghanistan, the USACE mission goes a step further and supports U.S. government goals with construction solutions in a complex and dangerous contingency environment. USACE builds projects in Afghanistan in three broad categories, said Col. Vincent Quarles, the Afghanistan Engineer District-South commander.

"We have a military construction program, a water and infrastructure program and an Afghan National Security Force

Workers pour concrete at a military construction site on Kandahar Airfield Mar. 29. The U.S. Army Corps of Engineers is responsible for construction that enables U.S. Forces throughout Afghanistan to execute their missions.

construction program. We also have an operations and maintenance program designed to train Afghans to operate and maintain the facilities we construct on their behalf," he said.

In 2012 the South District, headquartered at Kandahar Airfield, oversaw the completion of about 72 contracts primarily in the Afghan National Security Force, or ANSF, and military construction categories, Quarles explained.

"That's just part of the picture," he continued. "In 2012 we also awarded 111 projects totaling $1.28 billion and contractors completed about $795 million worth of construction on enduring district projects. That's a lot of construction work. We've awarded the contracts; now we're executing our construction program."

Identifying the need

While each category of construction -- MILCON, ANSF or Water and Infrastructure -- is unique, identifying the need generally follows a predictable path.

"The process for the Afghan National Security Force construction program starts with a Letter of Direction from CSTC-A (Combined Security Transition Command-Afghanistan), under the direction of U.S. Forces-Afghanistan," said South District's Afghan National Security Forces Program Manager Larry Leahy. "CSTC-A sends the Corps of Engineers requirements which include types of facilities and infrastructure needed, building purposes and the specific location for the project."

The South District commander, with input from engineers and project management, evaluates the request and determines the best solution.

"We then prepare a rough order of magnitude budget and return the planning information to CSTC-A," said Leahy who deployed from the USACE Southwest Division in Dallas.

CSTC-A reviews the Corps of Engineers proposal. If CSTC-A decides to proceed with the build then a representative contacts the Corps of Engineers which prompts the development of a scope of work.

"Once we develop a scope of work, a South District project delivery team puts together a contract solicitation announcement which is advertised on the federal business opportunities website, fbo.gov," Leahy

explained.

Water and infrastructure projects are funded through the Commanders Emergency Response Program or the Afghanistan Infrastructure Fund Program and go through a similar project design phase.

"When the Corps of Engineers is asked to build projects in this category either battle space owners or the Joint Program Integration Office in Kabul identifies the need and pays for construction," said Quarles.

CONTRACT AWARD

Contractors usually have 30 to 45 days to prepare proposals and bid on the Corps of Engineers projects but that depends on the complexity of the project. "The process is fairly well defined, but it is not always quick," said Ed Boddie, a South District contracting officer.

Sometimes potential contractors have questions and other times they have to demonstrate their qualifications before they can compete for a contract.

"Generally speaking though, most of our contracts are advertised as 'full and open,' meaning any responsible contractor can bid," Boddie explained.

The USACE mission also supports the Afghan First Program, a NATO program designed to contribute directly to the long-term stability, security, and economic development of Afghanistan.

"When Afghan construction firms successfully compete for and win construction contracts, the Afghan First Program works," Quarles explained.

"Right now at least 10 of our projects are being constructed with Afghan prime contractors," said Boddie who deployed from the USACE Philadelphia District." Further, most of the prime contractors hire Afghan sub-contractors so a large number of workers are Afghans."

CONSTRUCTION BEGINS

"Once USACE awards a contract, the contractor has to prepare certain documents before we can authorize them to begin construction," explained Boddie. "Those submittals include things like designs that meet Corps of Engineers specifications, site security plans and schedules."

The time it takes to prepare those documents and get them approved varies depending on a project's complexity but from contract award to when USACE issues a Notice to Proceed, between one and three months passes.

"I AM VERY PROUD OF OUR DISTRICT AND THE OVERALL USACE EFFORTS TO PROVIDE QUALITY FACILITIES FOR ALL AFGHANS."

"Some projects are more challenging than others so before we authorize a contractor to start work, we try to ensure that they have everything they need to be successful," said Leahy. For some projects, the government provides materials or uses standard building designs so that contractors can construct at a faster rate.

"Smaller contractors have less financial commitment up front, which ultimately helps them be more successful," Leahy explained. USACE manages the construction by closely

monitoring project schedules and requiring contractors to submit invoices for payment regularly.

"Each month we plan for and expect a certain amount of construction to be accomplished," said Quarles. In the first three months of fiscal year 2013 -- October, November and December 2012, the South District received contractor invoices totaling about $287.5 million but based on schedules expected $221 million. "It is good news when we pay out more than we planned," explained Quarles. "It means that more work was accomplished than we anticipated."

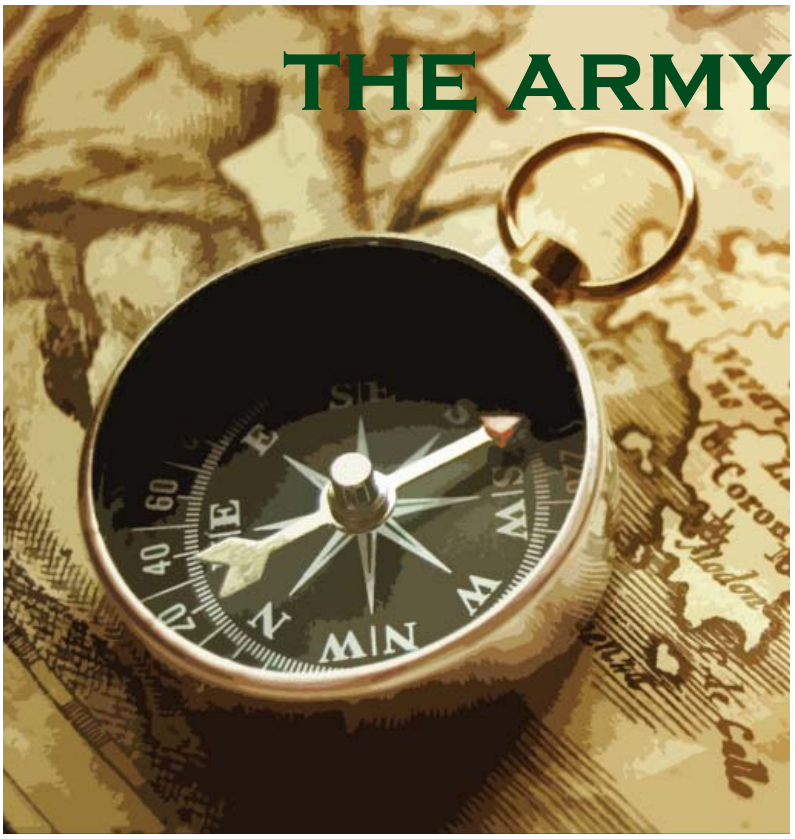
PROJECT TURNOVER

When a project is complete, customers or end users sign a receipt for the facilities and usually receive a set of keys, instruction manuals and a tour of the facilities in return. Sometimes a ribbon-cutting ceremony is scheduled to memorialize the event.

"I am very proud of our district and the overall USACE efforts to provide quality facilities for all Afghans," said Quarles. "When we attend ribbon-cutting ceremonies and turn over facilities, Afghan National Army and Police generals affirm in their speeches that our buildings enable Afghan independence and self-governance. Coming back a few months later to see Afghans operating and maintaining the facilities we construct is doubly rewarding."

Since its beginning in 2009, the Afghanistan Engineer District-South has completed more than 174 projects valued at $1.2 billion.

"Those totals represent a huge amount of work," Quarles explained. "Thousands of Americans, Afghans and people from all over the world have worked on USACE projects in Afghanistan. The facilities, whether large garrison-sized complexes or repaired power lines and switch yards, are a lasting legacy that we can all be proud of."



THE ARMY VALUES

THE UNIVERSAL VALUES OF LOYALTY, DUTY, RESPECT, SELFLESS SERVICE, HONOR, INTEGRITY AND PERSONAL COURAGE ENABLE YOU TO SEE WHAT IS RIGHT OR WRONG IN ANY SITUATION AND MAKE DECISIONS INFORMED BY THOSE VALUES.

New wastewater treatment plants promote good public health

Story by JC Delgadillo

The U.S. Army Corps of Engineers completed construction Jan. 31 of a wastewater treatment plant on Forward Operating Base Shindand in Herat province, western Afghanistan.

The project, which was built by an Afghan-owned and operated firm with oversight by USACE, can treat up to 930,000 liters of wastewater per day.

Until the plant was operational, grey and black water from showers, toilets and day-to-day living was collected in holding tanks. Afghan contractors then pumped out the tanks and emptied the wastewater into the Afghan National Army wastewater system, which is not optimally equipped to handle the additional waste.

"THE BIGGEST ADVANTAGE IS THE ELIMINATION OF THE OPEN SEWAGE LAGOONS WHICH PRESENT THE GREATEST RISK OF DISEASE TRANSFER ON THE BASE."

The Afghanistan Engineer District-South recently completed construction of a wastewater treatment plant on Forward Operating Base Shindand in Herat province, western Afghanistan, and this one at Multinational Base Tarin Kowt in Uruzgan Province. (USACE Photo by Karla Marshall).

"The biggest advantage with this new plant is the elimination of the open sewage lagoons which remain untreated and present the greatest risk of disease transfer on the base," said Daniel D. Foltz, USACE Shindand and Farah resident engineer.

"Waste water treatment is credited with removing potentially disease-causing contaminants through treatment that kills harmful organisms. This keeps disease and bacteria from entering other water sources and harming people as well as plants and animals."

An additional, similar wastewater treatment plant was completed in March 2013 at Multinational Base Tarin Kowt.

New Afghan Uniformed Police District HQ completed in Kushk

Story by JC Delgadillo

The U.S. Army Corps of Engineers delivered a newly-completed Afghan Uniformed Police district headquarters to Afghan authorities Jan. 20 in Kushk district, Herat province.

The facility, built by an Afghan-owned and operated construction firm with oversight by the Afghanistan Engineer District-South, will provide a high-quality base of operations for 120 Afghan police specialists.

The $3.7 million facility includes administration offices, barracks, guard shacks and towers, entry control points, fuel points, a water tower, wells, a water supply, treatment and distribution system, communications infrastructure, roads and more.

Since its creation in 2009, the district has overseen construction of nearly 50 Afghan National Police facilities.

Afghan uniformed police guard a U.S. Army Corps of Engineers construction site in Daykundi province. (USACE Photo by Karla Marshall).

BUILDING STRONG® for the people in Uruzgan province

Story & Photos by
JC Delgadillo

Members of the South District conduct a site visit at an Afghan National Security Forces installation under construction in Uruzgan province.

As commander of the Afghanistan Engineer District-South, Col. Vincent Quarles has visited most of the major projects under his charge including large-scale, multi-phase projects in Deh Rawood and neighboring Tarin Kowt, both in Uruzgan province.

The projects are the future homes of two battalions of the Afghan National Army 4th Brigade 205th *Atal* "Hero" Corps. When complete, the installation will include arch-span type construction as well as some concrete masonry units, roads, training ranges, medical clinics, fitness centers, motor pools, fuel points, dining facilities, armories and many other features common at military garrisons.

"This project is significant to Afghanistan's national security because it will serve as a base of operations for more than 4,000 Afghan soldiers," said Quarles. "The installation and presence of Afghan soldiers may also prevent violence and provide the 320,000 residents of Uruzgan with a stronger sense of safety and security."

Another added benefit of this project is that several local workers are employed thereby contributing to economic development in the

province.

To make sure contractors are building the garrison in an expeditious manner and according to plans and specifications, quality assurance and construction representative Daniel O'Connell of the South District visits the project site daily. He takes his quality assurance job seriously, and it's a job he has enjoyed for more than three decades, he said.

O'Connell is a former U.S. Army first sergeant who has built facilities all over the world including some in Germany and Nigeria.

Photographed is construction of the future home of the Afghan National Army 4th Brigade 205th Atal "Hero" Corps.

"WE WANT TO BUILD THESE FACILITIES QUICKLY AND IN COMPLIANCE WITH DESIGNS AND SPECS, AND WE WILL NOT SACRIFICE SAFETY OR QUALITY."

"We want to build these facilities quickly and in compliance with designs and specs, and we will not sacrifice safety or quality," O'Connell said.

Col. Vincent Quarles, commander of the South District, inspects a window installation at a construction site in Uruzgan province.

Water exits through the outlet end of Kajaki Dam's irrigation tunnel into the Helmand River. The South District awarded three projects in late January 2013 that will improve water control at the dam. (USACE Photo by Karla Marshall).

USACE to make improvements to Afghanistan's Kajaki Dam

Story by Karla Marshall

The U.S. Army Corps of Engineers awarded three projects under one contract for Kajaki Dam water management improvements in late January 2013.

USACE developed the projects to rehabilitate inoperable or poorly working components of the Kajaki Dam which will enable the dam's managers to better control water flow out of the dam.

"We awarded a contract in late January for Kajaki Dam improvements that will give Afghans better control of water stored in the Kajaki Reservoir," said U.S. Army Col. Vincent V. Quarles, the South District commander. "Currently the intake to the irrigation tunnel has an inoperable gate and the downstream valves and the emergency closure valves are in need of maintenance and repair."

If the emergency control system (valves and gate) fail, there would be no way to stop water from freely draining into the Helmand Valley either.

"The Kajaki Dam was constructed in the 1950s and because of decades of war and neglect has not had the benefit of sufficient, periodic upgrades and maintenance" explained Quarles.

One of the projects includes rehabilitation of

the three 84-inch roto valves located inside the irrigation tunnel and replacement of the three 84-inch jet valves located at the outlet end of the irrigation tunnel.

"Rehabilitating and replacing the roto and jet valves is a first, critical step to managing the volume of water released from the dam and improving the reliability," said Water and Infrastructure Program Manager Linda Murphy.

She explained that a roto valve is designed to open and close relatively easily, despite high fluid pressure. Jet valves are part of the outlet structure, and decrease the pressure of the water exiting the bottom of the dam, which prevents erosion and scouring. Currently neither the roto or jet valves operate as designed.

The purpose of the piezometer project is to perform an evaluation of the embankment to see if it is performing as designed or whether a dam safety concern exists, said Murphy, who deployed from USACE's Louisville District.

The third USACE project at Kajaki Dam includes increasing the capacity of the existing crane and rehabilitating the existing intake structure components.

The project includes the rehabilitation of the intake

Water exits through the outlet end of Kajaki Dam's irrigation tunnel into the Helmand River. The U.S. Army Corps of Engineers awarded three projects in late January 2013 that will improve water control at the dam. (USACE Photo by Mark Ray).

bulkhead gate, steel sliding gate, crane, crane hoist assembly, lifting assembly, embedded parts, and hydrology gage. The gates currently do not close, so no maintenance can be performed on the gates or the irrigation outlet tunnels, explained Tim Morris the South District's project manager who leads the project delivery team.

The three projects at the dam are scheduled for completion in late 2014.

The Kajaki Dam intake structure is in need of rehabilitation. The U.S. Army Corps of Engineers awarded a contract in late January 2013 that will repair key components of the structure. (USACE Photo by Karla Marshall).

The last bit of spray exits a fire suppression system on Kandahar Airfield Feb. 27, 2013. Before turning over newly constructed hangars such as this to the U.S. Air Force, the USACE requires systems pass preliminary and final acceptance tests.

Anatomy of a FAT: fire suppression systems at KAF pass the test

Story & Photos by
Karla Marshall

Fire suppression systems in certain hangers require mandatory performance tests before aircraft can be stored or maintained in them. On Feb. 26 and 27, the district oversaw Final Acceptance Tests at four hangers on Kandahar Airfield with much-anticipated foamy results.

The foam test is the last of a battery of tests conducted earlier in the week that included testing the fire alarm control panels, fire suppression panels and the sprinkler systems. For each FAT, the construction contractor lined the perimeter of the hangars with plastic sheeting prior to the test. After an alarm sounded for several seconds, the hangers filled with foam to a depth of almost seven feet in about two minutes.

"These four fire suppression system tests and subsequent tweaks represent the final phase of a U.S. Army Corps of Engineers project that included the construction of 12 hangars, or airlift shelters, for both U.S.

Air Force fighter and surveillance aircraft, 51,000 square meters of aprons and taxiway pavement, maintenance facilities, an avionics shop and a potable water pump

"EACH HANGAR HAS A HIGH EXPANSION FOAM SYSTEM, SPRINKLER SYSTEM, FIRE ALARM, AND FIRE SUPPRESSION ALARM ... THERE IS A LOT GOING ON WHEN THE FOAM PULL STATION IS PULLED; A LOT MORE THAN JUST THE FOAM COMING OUT OF THE CEILING."

house," said Veronica Rife, the lead project manager for military construction who deployed from USACE's Louisville District.

This multi-phased construction project supports counterinsurgency efforts in southern and eastern Afghanistan explained U.S. Army Col. Vincent V. Quarles the Afghanistan Engineer District-South commander.

"The pilots and crew who maintain the aircraft can be effective when they have appropriate facilities from which to execute their mission. The Corps of Engineers supports these war fighters by delivering high-quality, safe facilities and the FATs are critical final steps to ensuring the shelters meet specifications and design requirements."

The tests are important to ensuring that damage in the event of a fire is reduced explained Matt Polley, a Middle

The U.S. Army Corps of Engineers oversaw fire suppression system tests on Kandahar Airfield Feb. 26 and 27, 2013. Before turning over newly constructed hangars to the U.S. Air Force, the USACE requires systems pass preliminary and final acceptance tests.

East District center of excellence fire protection engineer, on hand to verify the test results. "The foam is bio-degradable and glycol based," he said. The foam creates a three-dimensional blanket which suffocates the fire and protects entire aircraft from fire damage.

"When the foam dries out, usually within 24-36 hours, it becomes a powdery substance that can be swept away easily," said Polley, a graduate of the University of Maryland.

The test included such things as

measuring the volume of foam dispersed in a set period of time, concentration and mix of foam to water, foam pressure and the speed at which the foam dissolved. Polley said that the foam system comprises multiple systems that all must work together.

"It is very important to test each system individually as well as concurrently," he said.

"Each hangar has a high expansion foam system, sprinkler system, fire alarm, and fire suppression alarm. Those systems all communicate back to a central receiving station located in another

"THE PILOTS AND CREW WHO MAINTAIN THE AIRCRAFT CAN BE EFFECTIVE WHEN THEY HAVE APPROPRIATE FACILITIES FROM WHICH TO EXECUTE THEIR MISSION."

building which then tells the fire pumps in another separate building to turn on. There is a lot going on when the foam pull station is pulled; a lot more than just the foam coming out of the ceiling," Polley explained.

"It is an amazing site to see," said Rife. "I hope nobody ever needs to use the systems in any of the hangers, but if there is a fire, we know the systems will work as designed."

The system' three generators are designed to produce about 150 gallons of the foam/water solution per minute each for about 15 minutes, Polley said.

About 18 hours after a Final Acceptance Test in this hangar, U.S. Army Maj. Fred Cummings (left) and Veronica Rife, both assigned to the South District military construction program were up to their waists in foam Feb. 27. Both Cummings and Rife were on hand to oversee fire suppression system tests at Kandahar Airfield Feb. 26 and 27.

"I am proud of the engineers, project managers and construction representatives who worked to complete each of the facilities in this contract," said Quarles. "The project was complex and large. The team overcame numerous obstacles and with the completion of these last four hangers, the Air Force will have exceptional facilities from which to carry out their missions."

Electricity powers economic development in southern Afghanistan

Story & Photos by JC Delgadillo

A man transports plastic goods from a factory at the Shurandam Industrial Park in Kandahar. Since 2011, the Kandahar Bridging Solution has provided diesel-powered generators at strategic locations, including the industrial park. Consistent and reliable electricity has encouraged economic development in Kandahar.

Modern economic development requires energy to fuel everything from factory floors filled with machinery to a single sewing machine at a tailor's modest shop. To that end, the U.S. Army Corps of Engineers implemented a transitional solution that provides consistent, predictable electricity to businesses in Kandahar province: the Kandahar Bridging Solution.

The bridging solution provides diesel-powered generators at two strategic locations in Kandahar City, explained Chief Warrant Officer 4 Keith Wright, a power production expert and the U.S. Army Prime Power liaison with the Afghanistan Engineer District-South.

According to the United Nations, Afghanistan

Since 2011, the Kandahar Bridging Solution has provided diesel-powered generators which produce reliable energy at two strategic locations in Kandahar including this one at Bagh-E-Pol.

ranks among the nations with the lowest electricity production per capita in the world. Poor access to electricity has been identified by the World Bank as the number one obstacle to investment in Afghanistan.

Recognizing the connection between electricity, security and economic development, the U.S. Government together with the Government of the Islamic Republic of Afghanistan, sought ways to improve electricity production and distribution as part of Afghanistan's reconstruction.

USACE and its partners, including Afghanistan's national utility company, Da Afghanistan Breshna Sherkat, are hard at work building lasting solutions to improve power distribution and reliability throughout the country.

The on-going Southeast Power System-Kandahar and -Helmand projects, which both seek to repair and rebuild existing transmission lines and substations, are USACE projects that should deliver more enduring fixes, explained Wright.

POOR ACCESS TO ELECTRICITY HAS BEEN IDENTIFIED BY THE WORLD BANK AS THE NUMBER ONE OBSTACLE TO INVESTMENT IN AFGHANISTAN.

The Kandahar Bridging Solution provides consistent, predictable electricity to businesses in Kandahar City at two strategic locations, Bagh-e-Pol (photographed) and Shurandam Industrial Park.

At the Shurandam Industrial Park in Kandahar, where eight diesel-powered generators within the bridging solution program operate, nearly 70 businesses are up and running, providing such things as plastic wares, rubber goods and textiles to customers. Before the bridging solution, businesses may have only received 12 hours of electricity in a 48-hour period. Now, electricity is available to them nearly 24 hours per day. Eight other diesel-powered generators within the bridging solution provide power to dozens of businesses in the Bagh-E-Pol area of Kandahar City.

U.S. Army Col. Vincent Quarles, commander of the South District, cautions that the bridging solution is just that, a temporary bridge leading toward the enduring solution.

"The generators are not the long-term, sustainable option, which is why we, along with our Afghan partners, other federal agencies and the international

"THE GENERATORS ARE NOT THE LONG-TERM, SUSTAINABLE OPTION, WHICH IS WHY WE, ALONG WITH OUR AFGHAN PARTNERS, OTHER FEDERAL AGENCIES AND THE INTERNATIONAL COMMUNITY, ARE REPAIRING AND REBUILDING ELECTRICAL DISTRIBUTION SYSTEMS."

Tim Morris, the Kandahar Bridging Solutions project manager with the South District (right) inspects a transformer at Bagh-e-Pol.

community, are repairing and rebuilding electrical distribution systems," Quarles, explained.

The Kandahar Bridging Solution has provided a reliable, temporary electricity solution that has powered economic development in Kandahar. Simultaneously, the U.S. Army Corps of Engineers and partners are laboring on longer-lasting infrastructure repairs.

Both efforts facilitate continued economic development and increased security and stability for the benefit of Afghans.

Chief Warrant Officer 4 Keith Wright, the district's Prime Power liaison, inspects generators and facilities at Bagh-e-Pol.

BUILDING STRONG® for Afghanistan's stability

Story & Photos by JC Delgadillo

Construction workers labor at the Camp Zafar construction site. The U.S. Army Corps of Engineers oversees construction projects for the Afghan National Security Forces, including Camp Zafar, that not only employ Afghan companies and workers, but also develop the knowledge, skills and abilities of Afghans.

The U.S. Army Corps of Engineers builds Afghan National Security Forces facilities including military bases and police stations that provide adequate settings for ANSF to live, work and train.

Since its inception in 2009, each project USACE's Afghanistan Engineer District-South has constructed has been aimed at fostering security and stability for the benefit of Afghans.

Through its Afghan National Security Forces Program, the district completed and transferred to the Government of the Islamic Republic of Afghanistan, 31 Afghan National Army facilities valued at about $540 million. Nearly 50 Afghan National Police facilities have been completed and transferred also.

"Armies play a vital role

in the defense and stability of any country," said Afghan National Army Major General Taj Mohammed Jahid, commander of the 207th Corps, through an interpreter. "You must have adequate facilities for armies," he said. "Not only do bases provide the location for training and day-to-day operations, but they serve as deterrents to violence. Military bases and the soldiers who inhabit them have a positive effect on neighboring communities because they provide both physical security and peace of mind," Jahid said.

Herat is a prime example.

"We have better security here in Herat then some of our neighboring provinces. That allows people to focus on more than mere survival; on things like building businesses, going to school and leading everyday normal lives," said Jahid, who leads 12,000 troops from his base of operations at Camp Zafar in Herat province.

Camp Zafar is a sprawling base built by an Afghan-owned and operated contractor with oversight by USACE. It has everything from barracks for thousands of soldiers, to armories, gyms, warehouses, a medical clinic and more. It's one of the Afghanistan Engineer District-South's signature projects; tangible evidence the district is putting lead on target.

In addition to austere and standardized designs, the type of military construction USACE prefers to build in Afghanistan now is the self-supporting steel arch structure. It's quickly erected, relatively inexpensive, yet reliable. Arch-span structures have attributes that make them ideal because they offer weather-proofing quickly.

"NOT ONLY DO BASES PROVIDE THE LOCATION FOR TRAINING AND DAY-TO-DAY OPERATIONS, BUT THEY SERVE AS DETERRENTS TO VIOLENCE. MILITARY BASES AND THE SOLDIERS WHO INHABIT THEM HAVE A POSITIVE EFFECT ON NEIGHBORING COMMUNITIES BECAUSE THEY PROVIDE BOTH PHYSICAL SECURITY AND PEACE OF MIND."

Thousands of Afghan National Army troops now live, work and train on the base and the camp is currently expanding to accommodate even more troops. Countrywide, Afghan officers and noncommissioned officers mentored by Coalition forces now train most Afghan soldiers. This holds true

at Camp Zafar where at the close of 2012, about 85 percent of recruits and soldiers, which include women, received training from Afghan instructors. They train at ranges, courses and classrooms built by USACE.

For U.S. Army Col. Vincent Quarles, commander of the South District, delivering quality and timely construction for his customers and end users is a top priority.

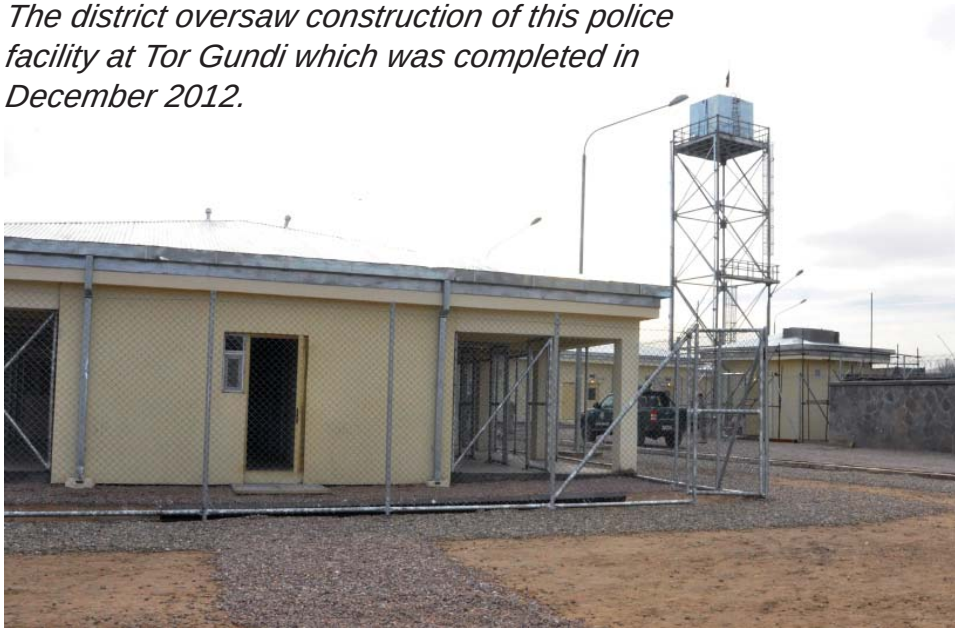
"Afghanistan must determine its own future and the Corps of Engineers, with the construction projects we oversee, is helping to set the conditions for a strong and enduring Afghanistan," said Quarles. "Adequate facilities that enable the ANSF to serve and protect communities is an important factor in setting those conditions," he said.

More than 100 ANSF projects ranging in size, cost and complexity are slated to be completed by the time the ANSF will assume full responsibility for security throughout Afghanistan in 2014.

With such a high volume of projects, the district has had to grow up fast, explained Quarles.

Prior to 2010, many of

The district oversaw construction of this police facility at Tor Gundi which was completed in December 2012.



the facilities USACE built were traditional concrete masonry units. Construction of a police station used to take about two years. Materials were not easily acquired and certain design features were unfamiliar to some Afghans. Sinks for common Afghan practices such as foot washing before prayer were not included in designs. A team of experts from USACE, the Defense Logistics Agency and GIRoA discussed improvements. The way ahead included employing a more austere and standard design, using government-furnished equipment instead of contractor-furnished equipment, and including features such as squat toilets and ground level sinks that allow for ablutions.

In addition to austere and standardized designs, the type of military construction USACE prefers to build in Afghanistan now is the self-supporting steel arch structure. It's quickly erected, relatively inexpensive, yet reliable. Arch-span structures have attributes that make them ideal because they offer weather-proofing quickly. Once the structure is up, laborers are able to work on the "guts" of the building: mechanical, electric and plumbing, sooner rather than later. The construction requires a commercial, trailer-mounted, automatic building machine, coiled steel and an electric seamer. A crane to lift arch panels into place, concrete form work and a welding are required. The time savings achieved is significant when compared to traditional construction. However,

delivering facilities on time and on budget in Afghanistan remains no easy duty. Perhaps the most grueling task for project managers entails keeping aggressive project schedules on track, said Ron Muriera, a senior project engineer with the district's Herat Area Office. Another challenge is logistics, since some supply routes remain dangerous and materials have gotten shot, stolen, or damaged, said Muriera, who deployed from the Seattle District. Site accessibility can be a challenge, too, since a number of construction sites are in remote areas far away from forward operating bases in harsh, mountainous terrain.

"The right mix of people, planning, coordination and commitment by everyone involved, with the common goal of achieving sustainable outcomes for and with the Afghan people has resulted in providing dozens of high-quality installations in strategic locations," said Quarles.

DELIVERING WHAT THE CUSTOMERS WANT, WHAT THE END USERS NEED

On a recent visit to a newly-constructed police headquarters compound near the border with Turkmenistan, Muriera met with Afghan National Police Colonel Noor Mohammad Adel to determine how the facility was operating. The facility was transferred from the U.S. government to the ANP in December of 2012.

"I cannot even begin to explain what a positive effect this facility has had on the policemen and the neighborhood," said Adel through an interpreter. "Before, all we had was an old, decrepit building and some shacks for cooking, sleeping and working. Look what we have now: A proper facility where police can effectively train and operate," he said. "Most of the police are from this town and having such a good facility here makes their morale high. Their families feel safer, too," he said.

Throughout the district's area of operations, USACE engineers, again and again, have overseen construction of barracks, showers, latrines, storage facilities, dining facilities, headquarters facilities, classrooms, obstacle courses, maintenance facilities, training ranges, armories, electrical distribution systems, sanitary sewer collection system, antiterrorism/force protection features, medical clinics and so much more to support the development of the ANSF and advancement of the Afghan people.

"Good communication on all levels across multiple agencies has been the key to being successful," said Muriera.

"We want to set the Afghans up for success," Quarles said. "Building quality facilities, selecting Afghan companies when possible, employing Afghan professionals and mentoring Afghan soldiers, police and civilians in facilities management will go a long way toward that goal," he said.

MENTORING: A TWO-WAY PROCESS

USACE has located and employed dozens of Afghan construction companies and engineering professionals. Since construction workers are most often Afghans and laborers from other developing nations where globally-recognized construction standards may not have

been demanded, quality assurance and construction representatives play a critical role. USACE quality assurance and construction representatives provide mentoring to Afghan contractors on the job sites. They visit sites several times a week and when they see a deficiency, they bring it to the attention of the contractor immediately.

Since language and cultural differences can often be a barrier, the district supplements USACE personnel with Afghan professionals. Most are engineering graduates of Afghan universities, speak English, inspect project sites and often are the only USACE-affiliated eyes and ears on the ground. At the most remote construction sites, inaccessible to Americans, the Afghan engineers provide construction oversight and report back to USACE with photography, video and professional assessments about progress on construction.

"They can travel throughout the country and spend hours at a project site as often as necessary even when USACE employees cannot," said Nabil Abourialy, a USACE registered professional engineer who serves as the senior civilian at the Herat Area Office in western Afghanistan.

For Quarles, the construction mission is personal.

"As Corps of Engineers personnel, each of us contributes to making life better for Afghans," he said. "Not only do our construction projects enable GIRoA to provide safety and security for its citizens, but they demonstrate to Afghans that the U.S. is committed to building a better future."

Afghan real estate acquisition more complex than location location location

Story by JC Delgadillo

Weekly, South District realty specialists Russ Wallace (right) and Nick Norals meet with Afghan prospective claimants to discuss their real estate situations and determine if their claims are legitimate. (USACE Photo by JC Delgadillo).

During armed conflict or contingency operations, U.S. Forces are authorized to use foreign real estate for such things as camp sites and construction of fortifications, according to Army Field Manual 27-10, The Law of Land Warfare.

Today, dozens of forward operating bases, combat outposts and similar facilities exist in Afghanistan so troops can conduct operations while better protecting themselves and the local population against insurgent forces.

The authority to acquire real estate in foreign countries in support of military contingency operations is delegated to the

Assistant Secretary of the Army. Authority is further delegated to the U.S. Army Corps of Engineers and at the Afghanistan Engineer District-South, to its expert on the ground, the real estate division chief. His specialized team of five real estate experts and a local translator assists commanders and battle space owners with negotiating and executing real estate instruments so the United States may legally occupy land in Afghanistan.

"Our mission is to acquire, manage, and dispose of real estate in support of U.S. Forces through leases for private property; no cost land use agreements with the host nation; permits with NATO forces; and licenses for construction of Afghan National Security Forces projects," said Keith Loos, chief of the small and bustling South District Real Estate Office.

"Supporting our military units and offering them subject matter expertise on all real estate matters is our primary focus."

Since its establishment in 2009, the South District has acquired over 142,000 acres of land for approximately 300 bases, checkpoints and sites in its area of responsibility which include Badghis, Daykundi, Farah, Ghor, Helmand, Herat, Kandahar, Nimroz, Uruzgan and Zabul provinces.

Spc. Robert Demski, a combat engineer with Company C, 2nd Special Troops Battalion, 2nd Brigade Combat Team, 4th Infantry Division, patrols through a pomegranate orchard in the Arghandab District of Kandahar province. (U.S. Army Photo by Sgt. Seth Barham).

The South District has dispensed nearly $3 million to 250 private landowners for the rights to occupy their lands. What was not occupied through a lease was acquired under a no-cost, land-use agreement with the Government of the Islamic Republic of Afghanistan.

"Units seeking real estate typically submit a Land Acquisition Request Form to the Corps of Engineers in advance of their occupancy and we ensure all requirements are met such as environmental baseline survey and proper ownership verification," said Loos, who is on his fourth deployment to Afghanistan from the Little Rock District and holds a Master of Business Administration and is a certified general appraiser.

Sensitive operations sometimes make it impossible for real estate instruments to be in place before land is used. U.S. forces sometimes displace private citizens from their land to quickly establish forward operating bases and smaller camps. As long as the United States has a continuing need for the base, the Real Estate Division enters into a lease retroactively and pays the landowner. With the sudden drawdown and the United

States closing and transitioning more bases to the Afghan National Army, the timely execution of real estate actions is becoming more and more critical.

"A common challenge that arises with private citizens is verifying ownership when no legal documentation, such as a deed, exists," said South District Realty Specialist, Nick Norals, "or when no documentation of the alleged occupancy, such as video or pictures is available," said Norals, who deployed from the Nashville District.

Another important factor is con artists who abuse the claims resolution process.

"We have to protect the U.S. government against fraud," explained Russ Wallace, an economist and realty specialist who deployed from the Little Rock District.

Weekly, realty specialists including Wallace and Norals, meet with Afghan prospective claimants to discuss their real estate situations and determine if their claims are legitimate.

"There are a lot of Army regulations as well as legal information real estate specialists working in Afghanistan must thoroughly understand," said Norals. "These policies and procedures are necessary to ensure all U.S. Forces have the appropriate legal interest in land they use. The challenge of the language barrier, security, travel, lack of records, survey of ownership and the processes of determining owners is unlike any situation real estate specialists in the States will experience."

Most realty specialists possess extensive knowledge about real estate business processes and laws and some have certifications as appraisers or realtors, but they are normally not attorneys, so they must frequently communicate and coordinate actions with judge advocates.

The Department of Defense assigns licensed military attorneys, with specialized claims experience, to resolve a variety of claims in Afghanistan. These judge advocates are crucial, but they have limits, too, and typically do not resolve real estate occupancy claims.

We certainly want to resolve legitimate claims that are within our purview and we work closely with the judge advocates because sometimes, what seems to be a real estate issue at first is actually a different issue, covered by different regulations and we have the authority to resolve it, said Wallace. Other times, claimants may have a real estate issue along with another issue that is beyond our scope. While we may be able to resolve their real estate occupancy claim, we still need to refer them to the judge advocate for assistance on the other issue, he said.

The variation and complexity of cases can be overwhelming, but as Loos advises, it's essential that we do right by the lawful land owners through compliance with laws and regulations governing the use of real estate, he said.

Following the processes, policies and procedures is necessary to ensure all U.S. Forces have the appropriate legal interest in the land they use, based on Afghan law for legal ownership or Sharia Law, he said.

It's an intricate process and requires extensive coordination with our Coalition partners, Afghan counterparts and other customers and we are committed to doing it, said Loos

Quickly and successfully conducting lawful real estate operations and resolving legitimate claims in a fair manner promote security and trust among the local population, he said.

It is rewarding for me, personally, when we meet with an Afghan land owner who subsequently leaves satisfied that the claims process worked fairly," he said.

Meet the Multanis: An American family building strong in Afghanistan

Story & Photo by JC Delgadillo

Husband and wife team, Balwant and Bimla Multani, photographed with U.S. Army Col. Vincent Quarles in December 2012.

Husband and wife team, Balwant and Bimla Multani, have traveled the globe building infrastructure and friendships for nearly 45 years. Their latest foray into construction and camaraderie has both Multanis serving in Kandahar, Afghanistan with the U.S. Army Corps of Engineers.

"Wherever I've lived, I've tried to connect with the people, learn the language, the culture, listen to the people's needs and concerns and be responsive," said Bimla, an information management specialist who is known affectionately as "Bimi."

Mechanical engineer Balwant, known by his nickname, "Bal," says he feels lucky to have been blessed with a smart, beautiful, highly-adaptive wife who sees challenges as adventures and is willing and able to join him on deployment.

Risk has been part of his life almost since birth. Bal was born just a few years before the Partition of India in 1947 in a village that is now in modern-day Pakistan. Immediately after Partition, Bal and his family fled their village toward the Indian side of the border.

"It was a treacherous time and our lives were in danger, so we left everything behind and headed to a safe place," he explained.

For six months, Bal and his family lived in a refugee camp. They were penniless, he lamented, but eventually acquired a plot of land and became farmers.

For Bimi, a city girl, born in New Delhi to educated and well-travelled parents, knowledge acquisition and servant-leadership were highly encouraged.

"My father was a World War II veteran and my hero," she said. "He was a signal officer in the British Indian Army and served throughout Europe and the Middle East. He believed in teaching people how to think rather than what to think," she said. "He believed knowledge and self-awareness were essential to becoming self-sufficient and capable of leading others."

It's no surprise then that Bimi graduated from the

University of New Delhi with a bachelor's degree in education in 1968.

Bal, on the other hand, moved to the United States to build his future. His brother-in-law, a physician, who lived and worked in Connecticut for one year, inspired Bal to go to the United States. A colleague of Bal's, who was also an engineer, recommended Bal apply to Howard University in Washington because the colleague had attended school there and raved about the experience. Bal's aptitude for hard sciences led the country boy to Howard, where he earned a bachelor's degree in mechanical engineering in 1966 after previously earning degrees in math, physics and chemistry in India.

He returned to India in 1968 at which time he was introduced to Bimi. Within hours of meeting, both agreed to marry each other. Theirs was an arranged marriage. The couple returned to the United States and Bal worked for private-sector engineering firms until 1974, the year Bal became a naturalized American citizen.

"American citizenship opened the door for me to join the federal government, and I was selected for a position at the Naval Facilities Engineering Command," Bal said. Bal also obtained the registered professional engineer designation. Similar to how the CPA defines the accountant, and a license to practice law defines the lawyer, the professional engineer license tells the public that an engineer has mastered the critical elements of the engineering profession.

In 1982, Bal started a new job with the U.S. Army Corps of Engineers. The Multanis, with two young sons, headed to Saudi Arabia where USACE was building large-scale Saudi military installations.

Under contracts between USACE and the Saudi government, King Khalid Military City and many other military installations were built. From 1982 to1986, Bal served as a project engineer and project manager on numerous military infrastructure projects in Saudi Arabia.

The Multanis returned to Washington, D.C. in 1986 and Bal resumed his position at NAVFAC. Meanwhile Bimi, who had also become a naturalized U.S. citizen, went to work in finance and accounting for a large company in Reston, Va.

In 1996, Bimi, who had an interest in computer technology, became a software support specialist.

Bal's experience building military installations, hospitals, bridges and roads made him a good fit for reconstruction projects in Afghanistan. He deployed to Kabul in 2005 and worked on projects aimed at helping the Government of the Islamic Republic of Afghanistan promote security and stability.

Although Bimi was proud of the work Bal was doing, she missed her husband terribly, she said. She was either going to ask him to come home or find a position for herself in Kabul. In 2006, after being apart from Bal for a year, she resigned from her private-sector job upon being selected for a position in Kabul. Ten years of information technology experience made her a good fit for a computer and Internet-based knowledge management position with USACE.

> "WHEREVER I'VE LIVED, I'VE TRIED TO CONNECT WITH THE PEOPLE, LEARN THE LANGUAGE, THE CULTURE, LISTEN TO THE PEOPLE'S NEEDS AND CONCERNS AND BE RESPONSIVE."

She and Bal were reunited and both have been able to live and work together in Afghanistan since then. Bal works in the Technical Services Branch. He fulfills an assortment of functions that require a registered professional engineer's guidance.

Bimla continues to work in knowledge management for the district. The Multanis are currently completing their last deployment in Kandahar. They expect to return to Virginia near their adult children and grandchild by the end of 2013.

For Bimi, having a small part in improving public infrastructure in a country that desperately needed support from the international community has been the highlight of her professional life, she said.

"I've made so many friends here, from all over the world, and I've even had the opportunity to teach and mentor Afghans," Bimi said.

For Bal, a youthful 74-year-old, he is finally really ready to retire, he said.

"We left India when we were young, so we'd like to go exploring India further. We also want to visit many states in America. Both America and India are big countries and we have not seen too much of either, so we want to travel a bit, just the two of us," Bal said.

"I will leave Afghanistan knowing Bimi and I did the very best we could to help improve conditions for Afghans, and that for me is a poignant way to finish out my career ."

"I WILL LEAVE AFGHANISTAN KNOWING BIMI AND I DID THE VERY BEST WE COULD TO HELP IMPROVE CONDITIONS FOR AFGHANS."

Laissez les bons temps rouler even on deployment

Story & Photos by JC Delgadillo

Afghanistan Engineer District-South reveled in a Mardi Gras celebration at Kandahar Airfield in Kandahar province, Afghanistan, Feb. 12, 2013.

Far from home, U.S. Army Corps of Engineers personnel deployed in southern Afghanistan celebrated Mardi Gras with music, a parade, dancing, costumes and a Cajun-inspired dinner complete with king cake at Kandahar Airfield Feb. 12.

Laissez les bons temps rouler, "let the good times roll" in French, was in full effect for three brief and much-needed non-duty hours on Fat Tuesday.

Louisiana residents and South District teammates, Mike Hatchett, Karla Marshall, Angela May and Tammy Washington, led a crew of USACE volunteers and revelers in a celebration that toured parts of Kandahar Airfield including the Liberty House Morale, Welfare and Recreation center and the Warrior Recovery Center, a medical facility where wounded troops recover and rehabilitate.

Army Col. Vincent Quarles, the district commander, served as the parade's grand marshal. District teammates Verna Nelson and Hector Vega were voted as the event's king and queen

TOP LEFT: Joyce O'Shea (right) assists Joanne Long with her costume during a Mardi Gras celebration hosted by the U.S. Army Corps of Engineers at Kandahar Airfield Feb. 12, 2013. RIGHT: South District teammates Verna Nelson and Hector Vega were voted as the Mardi Gras celebration king and queen. BOTTOM LEFT: Louisiana residents and South-District teammates Karla Marshall (left) and Angela May helped lead a crew of USACE volunteers and revelers in the Mardi Gras celebration at Kandahar Airfield.

and both tossed candy and beads to parade spectators as they rode along in a special parade float- a motorized utility cart decorated with beads, masks and streamers. District teammates Ruth Townley and Washington choreographed a performance and dozens danced the streets of Kandahar Airfield.

"It was important for me to share a little bit of my state's history and culture

Decorated motorized utility carts served as floats during a Mardi Gras parade at Kandahar Airfield Feb. 12.

TOP: Joyce O'Shea (left) and Tony Carter dance during a Mardi Gras celebration at Kandahar Airfield. BOTTOM: District employees march in the Mardi Gras parade.

with my USACE buddies," said May, who helped prepare Cajun food and Mardi Gras decorations. "I was thrilled to see so many people laughing and dancing and having such a great time!"

May is a resident of Abita Springs, La., and deployed to Afghanistan from the USACE New Orleans District.

Nandy Perillo (left) and Steve Reed, both with the Afghanistan Engineer District-South, build a frame for a new walkway at Kandahar Airfield's Warrior Recovery Center Feb. 9, 2013.

District volunteers build walkway, make moving around easier for Wounded Warriors

Story & Photos by JC Delgadillo

American Wounded Warriors who can be rehabilitated in Afghanistan may receive care at the Warrior Recovery Center.

Although a modern, well-appointed facility, it was in need of some construction upgrades. Like the ground at most camps throughout Afghanistan, the area between the center's residential and treatment buildings is covered with pebbles over mud and dirt. This surface is unsteady and difficult for soldiers with lower body injuries to navigate. Enter the U.S. Army Corps of Engineers with a solution.

USACE volunteers quickly built a safe and sturdy wooden walkway Feb. 9, 2013 so patients can travel more easily to and from the various buildings at the center.

U.S. Army Lt. Col. Stephen Bales, the district's deputy commander, cuts wood for a new walkway at Kandahar Airfield's Warrior Recovery Center. "Measure twice, cut once," Bales advised.

"No more soldiers on crutches hobbling over rocks," said Sgt. Christopher Giddinge, a health care specialist assigned to the Warrior Recovery Center.

Giddinge, who previously served as a trauma medic in Iraq and possesses specialized training in MTBI/Concussive care, strives to provide Wounded Warriors with the highest-quality care, support and facilities as possible, he said.

During their non-duty hours, USACE personnel including Tony Carter, Nandy Perillo, Mike Rooney, John Caudill, Steve Reed, Bee Xiong, Jim Armstrong, Mark Alton, Al Lorenzo, Bob McEchnie, Julio Arocho, Lt. Col. Stephen Bales, Perry Hubert and Doug Jamieson built the wooden walkway.

Although not all the USACE volunteers are engineers or construction representatives, each had the desire to make getting around the Warrior Recovery Center easier for wounded troops, explained Jamieson, a registered professional engineer from the state of Washington

District volunteers pose for a photo at the Warrior Recovery Center at Kandahar Airfield.

whose son is a U.S. Marine.

For Carter, a civil engineer and project management professional who deployed to Afghanistan from the USACE Wilmington District, constructing something for service members whose selfless service contributed to their injuries was the least he could do to show his gratitude, he said.

"The walkway needed to be built, so we just built it," added Carter through a broad smile.

Constructing the walkway is just one in a series of actions USACE has taken to help make recovery for the injured troops a little bit easier.

In June, USACE hosted a five-kilometer race with about $8,000 in proceeds used to purchase shoes, shirts, reflective belts, alarm clocks, power converters, watches, DVD players and other items for patients at the center.

Wounded Warriors are also regularly invited to participate in movie and game nights at the USACE compound and are always invited to attend USACE-sponsored holiday events at KAF too.

"THE WALKWAY NEEDED TO BE BUILT, SO WE JUST BUILT IT."

"EACH HAD THE DESIRE TO MAKE GETTING AROUND THE WARRIOR RECOVERY CENTER EASIER FOR WOUNDED TROOPS."

Around The Division

A special section featuring news from the Transatlantic Division, Transatlantic District-North and the Middle East District.

USACE awards contract to improve Dahla Dam in southern Afghanistan

Story by
Joan Kibler

Dahla Dam, constructed in 1952, is the primary source of irrigation for Kandahar province. The U.S. Army Corps of Engineers Middle East District awarded a contract to improve operational reliability and safety at the dam Feb. 26. Col. Jon Christensen (right) Middle East District commander and and Roger Thomas, MED's chief of construction visited the site Mar. 31. (USACE Photo by Karla Marshall).

The U.S. Army Corps of Engineers Middle East District awarded a task order contract on Feb. 26 for the Dahla Dam Improvement Project, Phase I, in Kandahar province, Afghanistan. The contract was awarded to Bryan 77 Construction Joint Venture of Colorado Springs, Colo., for $57 million.

This critical infrastructure project calls for the repair and replacement of water control features to reduce water loss due to leakage and to improve operational reliability and safety at the dam. The work includes rehabilitating the existing intake structure and replacing its components. The performance period is two years.

Additionally, this project will instill in the Afghan people the good will and continued support of the United States toward Afghanistan as U.S. forces transition regional security over to the Government of the Islamic Republic of Afghanistan.

Dahla Dam, located on the Arghandab River in Kandahar province approximately 21 miles northeast of Kandahar City, was constructed by the U.S. Bureau of Reclamation in the 1950s. The dam provides irrigation water through the Arghandab Valley – once known as the breadbasket of Afghanistan – where agriculture is the primary industry. Most of the flow for the Arghandab River comes from melting snow in the Hindu Kush Mountains west of Kabul. The water is collected in the Dahla reservoir from February through April and stored for irrigation for the rest of the year.

Because the dam has suffered from decades of neglect and war, its intake and outlet works do not operate correctly, and sediment has reduced reservoir capacity by 30 percent.

"In short, this project facilitates the collection of snow melt and rain, eliminates flooding in the spring, and allows the water to be used for crops," said Deborah Duncan, Deputy for Programs and Project Management, Middle East District. "This project will benefit the livelihood of Afghan people and contribute to stability."

The Dahla Dam Improvement Project, Phase I, results from the collaboration of multiple agencies from Afghanistan and the United States to increase water supply in the Arghandab Valley. The improvement project supports the collaborative efforts to provide governance and a secure environment for sustainable stability for Afghan people.

"This key Afghanistan infrastructure project will promote economic stability in the area by providing the area with better water control for irrigation," said Col. Jon Christensen, commander, Middle East District. "Additionally, it will go a long way in ensuring the Afghans have a safe and reliable structure for their future use. We look forward to partnering with the Afghans in the execution of this important project."

> "IT WILL GO A LONG WAY IN ENSURING THE AFGHANS HAVE A SAFE AND RELIABLE STRUCTURE FOR THEIR FUTURE USE. WE LOOK FORWARD TO PARTNERING WITH THE AFGHANS IN THE EXECUTION OF THIS IMPORTANT PROJECT."

The project falls under the Afghan Infrastructure Program, an authority and appropriation granted by Congress in Fiscal Year 2012 in the National Defense Authorization Acjht.

At the request of the Afghanistan Engineer District-South and to streamline the contracting process, the Middle East District awarded this contract using a set of Multiple Award Task Order Contracts (MATOCs) already in place.

USACE Transatlantic District-North provides a different kind of relief

Story & Photo by Todd Lyman

Members of U.S. Army Corps of Engineers Transatlantic District-North, based in Kabul to help rebuild the country, provided a more direct form of relief to three families affected by the Nov. 21 suicide bombing that occurred in the Green Zone.

The district, comprises approximately 500 military and civilian personnel in Kabul and throughout the northern and eastern regions of Afghanistan, and directs the construction of hundreds of projects designed to reinforce the country's infrastructure after more than 30 years of war.

Work activity was interrupted very abruptly at approximately 8:15 a.m. with the sound of an explosion from outside the compound. Unknown to team members at that moment, the lives of three families' lives were forever changed.

Two Burhan Security Services guards were killed and one severely injured in the blast that killed both bombers.

Marine Corps Staff Sgt. Joel L. Billingsley, staff non-commissioned officer in charge of force protection for Transatlantic District-North, updates the team Dec. 8.

"These men gave their lives to protect us," said Army Col. Alfred A. Pantano Jr., district commander. "They exhibited the same courage I witnessed of my soldiers I led as a battalion commander in Iraq."

Another district member was moved by the sacrifice. Marine Corps Staff Sgt. Joel L. Billingsley, staff non-commissioned officer in charge of force protection, immediately felt something had to be done. Billingsley works with BSS guards daily, and knew that these men collectively were responsible for four children, two wives and a fiancee.

One guard killed was a promising boxer who planned to box in a tournament in the Republic

of Korea and was to be married shortly. The other guard killed was in his mid 50's and came from the same village as the younger. He left behind a family. The injured guard

Two Burhan Security Services guards were killed and one severely injured in a blast that killed both bombers.

will suffer disabilities as he continues to recover. He also has a family.

Billingsley said, "It was reported in the media that the government would pay for the education of the guards' children, but there are still expenses associated with the losses. Weddings and funerals are the most expensive events in Afghanistan, plus daily living expenses remain.

"I felt it was right to do something for these families—the same as for those in the Marine Corps. I lost a Marine when I was a young corporal and I send flowers to his mother every year. These BSS guards may wear different uniforms, but I care about them the same as my Marines. They are family."

Billingsley knew that the rest of the TAN team felt the same and were asking after the men. He decided to update the district during a house meeting Nov. 24.

"I have never organized a drive like this. I just took the ball and ran," Billingsley stated matter-of-factly.

The Chesterfield County, Va., native stood before hundreds of Corps members Nov. 24 and explained the loss and displayed Photos of the men killed.

He eloquently relayed the details and told about the men killed and injured. He offered to take charge of any district support activities. He set up a plastic jug in the dining facility for anyone who desired to donate.

The 12-year Marine set the modest goal of $3,600 in his mind, thinking that would pay the annual rent for three families.

"I was shocked after the first day. TAN members had stuffed nearly $1,700 in the jug. On day number two another $1,900 was added," Billingsley commented.

He kept the district family informed of the daily total. Billingsley had reached his

USACE personnel have given more than $9,100 and several sympathy and condolence cards to the victims' families.

goal in only two days. At the end of 15 days, Billingsley gathered his jug from the DFAC for the last time. TAN had given more than $9,100 and several sympathy and condolence cards. Fellow guards followed Billingsley's and the district's example and passed the hat for their fellow members. Their collection will also go to the families.

Service members at Camp Eggers sort clothing sent from Galveston District in support of Operation Warmth in Kabul, Afghanistan. (Photo courtesy of Grant Anderson).

USACE joins forces to battle winter for Afghan orphans

Story by Todd Lyman

Galveston District, Southwestern Division, U.S. Army Corps of Engineers have earned a reputation for supporting team mates who deploy to serve in Afghanistan as part of Operation Enduring Freedom.

Recently their reputation gained a boost when they extended support to Afghan citizens as part of "Operation Warmth."

Operation Warmth is part of an initiative begun years ago by the Volunteer Community Relations committee, a volunteer organization from Camp Eggers in Kabul, located near USACE Transatlantic District-North. VCR, with many TAN volunteers, gathers sorts and distributes donations from the U.S. to Afghan citizens, especially during the winter months. TAN's contribution to the VCR has been labeled "Operation Warmth" by current and former corps employees who made Qalaa House, Kabul their home. When word spread to Galveston District, the wheels were set in motion to demonstrate the generosity and compassion of Texans.

Colleen Chamberlain, Transatlantic Division

program manger working at TAN, explained how Galveston District members became energized when they heard about the need.

"Texans are known for their strong hearts, will, and pride. In early December, I asked a few friends in Galveston District to help collect coats for Operation Warmth. I was envisioning a collection of 20-30 coats considering the time of year and the short deadline. Amazingly, the district collected well over 300 coats and more than $350 in cash. Everything really is larger in Texas, including gratitude and kindness."

"Kevin Kelly, a paralegal with Galveston District, dedicated his time coordinating this event, collecting, packaging, and sending the coats. He hauled 15 large boxes to the Galveston Post Office in December and January. Without his and Sarah Xie-DeSoto's, a Galveston District structural engineer, desire to help the Afghan women and children, the word of this event would not have been conveyed to all the contributors, wonderful organizations in Galveston and surrounding areas."

Kelly continued, "Galveston District economist Robert Needham coordinated with two churches, Clear Lake Chinese Church and University Baptist Church. They gave six or seven big bags of clothing and over $200 for shipping cost."

Lisa Johnson, Galveston District administrative assistant, said, "My son, Ryan's, school is R.J. Wollam in Santa Fe, Texas. I went to his school on Dec. 21 to attend his Christmas class party. Upon entering the school I noticed three large tables heaped with jackets. I asked the assistant principal what was going on and he told me that the tables held the lost and found items and that notices were sent out telling parents that the last day to check for jackets was that day. After Dec. 21st, unclaimed items would be donated to a local non-profit resale shop. That pile was huge! There were 91 jackets total, and I spent the next three days sorting them out by color, washing them (11 loads) and zipping them up. Lots of work but such a good feeling doing it. I explained to my seven-year-old son what I was doing, and he insisted on helping. I know this is something he will remember, and some day when they are learning about the whole ordeal over there, he can say he had his little hand in helping."

"I WAS ENVISIONING A COLLECTION OF 20-30 COATS CONSIDERING THE SHORT DEADLINE. AMAZINGLY, THE DISTRICT COLLECTED WELL OVER 300 COATS."

The Coast Guard Marine Safety Unit in Texas City also contributed to the herculean effort to help our Afghan neighbors.

TAN's most recent activities were preceded by work in November, when 30 USACE employees joined forces with the VCR committee to prepare two boxes of donated jackets, socks, hats, gloves and other winter clothes Nov. 5. The donations were delivered to a large orphanage before the holidays. The VCR team made weekly deliveries using armored vehicles.

"A group of civilian and military employees launched the program a few years ago at the first sign of winter weather and still see the need to carry it on," said Colleen Shanklin, chairwoman of the Corps of Engineers volunteers here.

Air Force Capt, Ashley Housley, VCR Director, from San Clemente, Calif., thanked the Corps of Engineers employees in November for the contributions as they sorted boxes and said she hopes to join force again in their fight to help Afghan orphans, many of whom lost parents during long wars against insurgent and Soviet forces.

All donations are coordinated through the Ministry of Women's Affairs or the Ministry of Education.

Terry Surratt, Diane Davis and Colleen Shanklin stack boxes of warm clothing for delivery during Operation Warmth. (Photo courtesy of Grant Anderson).

A Tier II team attempts to bring a "helium stick" to the ground through use of leaderships skills and teamwork.

Aspiring leaders kick off new season of learning

Story & Photo by Kristin Hoelen

"Great leaders aren't born that way – they are groomed," said Robert Thomas, structural engineer and Leadership Development Program facilitator. "Leadership is something you have to work at. That is why we are here: to train great leaders."

On Dec. 13, 2012, twelve members of the Middle East District team began their year-long journey into the LDP Tier II program: Danny Banks, Brandon Chance, Jerry Dabkowski, Shufeng Lin, Dan Lyons, Steve Markland, Kevin McLellan, Dave Rackmales, Joe Riley, Kim Sanders, Christine Sawalha, and Jeff Slater. This is the sixth year for the LDP at the district. Tier II is aimed at helping participants get a better understanding and take control of their personal strengths in leading. Typically, Tier II participants have already completed Tier I which is focused on being a valuable team member.

Their formal session started with a presentation by Caryl Hickel, LDP graduate

and chief of Project Management Division's Business Management Branch. She discussed objectives for Tier II participation and what each member should put into the program during the next year. She encouraged participants to grow outside their comfort zones, diversify, and learn, all while having fun.

"During the next year, this group will observe each person's learning style,"

Great leaders aren't born that way – they are groomed.

said Brian Ball, project manager and LDP facilitator. "They will learn how they approach different problems and group work. This will help prepare them to recognize and accommodate each person's style for when they are the leader. The focus is not only on improving one's self but also improving the organization."

In past years, the LDP team would travel to an offsite location where they would spend the day participating in team exercises, climbing towers and exploring tree top courses. This group chose a new approach for an offsite, keeping everyone's feet on the ground, at the nearby park. The afternoon was spent on fun problem-solving activities.

"The rope courses done previously were always more of a personal challenge than a team challenge," said Daryl Puffinburger, LDP graduate and program facilitator. "This year we wanted to put emphasis on team building and strengthening."

The three facilitators used a few exercises they had previously learned but also researched and invented a few of their own. They led the group through six activities in several locations throughout the park, allowing everyone to use their creative skills to engage in solving the puzzles.

"During the activities, no one sat back and let everyone else do the work," said Thomas. "Everyone put in their two cents worth. You are only going to get out what you put into it, and you are only going to help the group if you are able to step out of your comfort zone."

Deputy Commander Lt. Col. Rusty Sears also participated in the group activities, working with the Tier II members. He commended them on a successful start to their program and added,

"My challenge for you is to drop your ego and open yourself up to new experiences."

At the start of the day, each member was assigned the task of observing someone in the group and how he or she reacted during the activities. As a wrap-up exercise, each person provided feedback on what was learned from that experience.

Feedback is when you have to say the hard things at times. You have to be able to hear it, accept it, and learn from it.

"Feedback is good," said Puffinburger. "Feedback is when you have to say the hard things at times. You have to be able to hear it, accept it, and learn from it. I was always taught that feedback is like a gift. You can take it and use it; take it and throw it away; or take it and regift it. You just have to

remember that it is not good or bad; it is just learning about yourself and how others perceive you."

"I am an introvert by nature, but that doesn't work for a leader," Sears said. "I got a lot of great feedback in the Army and learned that you can have a lot of respect for someone who can give you that information."

The facilitators have had good experiences with the LDP programs and expect this LDP group will succeed. This program will continue through September. During this time, they will attend sessions on leadership and mentoring, self awareness and personal effectiveness, leadership philosophy, making a change, empowering people in their relationships, effective communication and making presentations, and understanding the organization and senior leadership.

The group will meet monthly and will be given a large group project that will enable them to apply their new skills. After graduation, the 12 members will each be assigned individual utilization assignments working with various groups and committees that will help improve the organization.

Army Civilian Corps Creed

I AM AN ARMY CIVILIAN – A MEMBER OF THE ARMY TEAM.
I AM DEDICATED TO OUR ARMY, OUR SOLDIERS AND CIVILIANS.
I WILL ALWAYS SUPPORT THE MISSION.
I PROVIDE STABILITY AND CONTINUITY DURING WAR AND PEACE.
I SUPPORT AND DEFEND THE CONSTITUTION OF THE UNITED STATES AND CONSIDER IT AN HONOR TO SERVE OUR NATION AND OUR ARMY.
I LIVE THE ARMY VALUES OF LOYALTY, DUTY, RESPECT, SELFLESS SERVICE, HONOR, INTEGRITY, AND PERSONAL COURAGE.
I AM AN ARMY CIVILIAN!

Division, District leaders plan for future

Story & Photos by Joan Kibler

"Thinking well is wise; planning well, wiser; but doing well is the wisest and best of all. – Persian Proverb

Transatlantic Division's Jill Altemose and Rich Taylor capture the results of their workgroup's deliberations.

Leaders in the Transatlantic Division and Middle East District know that major changes are coming.

The Transatlantic Division must restructure in the next few years. Its districts in Afghanistan are awarding and constructing projects at a feverish pace to coincide with the planned pullout of the majority of U.S. troops in 2014. And, they must complete that work while drawing down according to an established plan.

The Middle East District faces changes in workload as it shifts from predominantly U.S. military construction work to foreign military sales projects. With the workload shift comes changes in staffing to accomplish the district's enduring mission

With much to do in the strategically important U.S. Central Command area of operations, Maj. Gen. Michael Eyre, Transatlantic Division commander, said he wants the division and district to move forward "shoulder to shoulder" during an FY-13 strategic planning session.

Several Middle East District staff members participated in the division's strategic planning session to better understand the issues facing the division.

The Afghanistan districts also sent representatives to the all-day session.

For Middle East District Commander Col. Jon Christensen, the joint session was important for shaping the future.

"Being part of TAD's strategic planning process helps us to optimize and build the relationship with our division counterparts," he said. "We must move forward together."

Christensen thanked the division leadership for giving the districts the opportunity to collaborate in the strategic planning process, especially

considering the vast changes that will occur within the division in the next few years.

The division's strategic planning session was aimed at reviewing the overarching U.S. Army Corps of Engineers goals and objectives (the campaign plan) and developing corresponding division actions, tasks and metrics (the implementation plan, also known as the TAD I-Plan). That work was tackled by teams comprised of division and district people.

The working sessions revolved around the division's MATT imperatives:

- Mission – finish the mission in Afghanistan; prepare for the future.
- Affordability – rigorously analyze our costs.
- Transformation – shape what "right" looks like in the face of looming personnel reductions.
- Transition – reduce the USACE presence in Afghanistan; maintain the capability to respond to the nation's needs.

With a solid I-Plan draft, the district met a few weeks later to develop the next level of activity: the district's operations plan (or O-Plan), which outlines its initiatives to support the division I-Plan and the USACE Campaign Plan.

"My intent is that we lead change as we anticipate and prepare for the future," Christensen said. "Strategic planning gives us the opportunity to develop a unified team with a common vision."

With a workshop environment encouraging participation, Christensen stressed that "we must select tasks that are doable. Sometimes we can put too much on our plate at the 'initiative buffet.'"

To help prepare the Middle East District staff to develop tasks, Lt. Col. Russell Sears, deputy commander, Deborah Duncan, deputy

The Middle East District's Counsel Bill Rogers leads discussion during one of the workgroup breakout sessions for the district's O-Plan.

for programs and project management, and Roger Vogler, chief of engineering, gave presentations on TAD's transition, the results of transition meetings held in Afghanistan, the glide path to an enduring organization, and the district's workload.

From those briefings and discussions, participants focused on developing tasks that are beneficial for the district's performance and that nest in the division plan.

Among the tasks for fiscal year 2013:

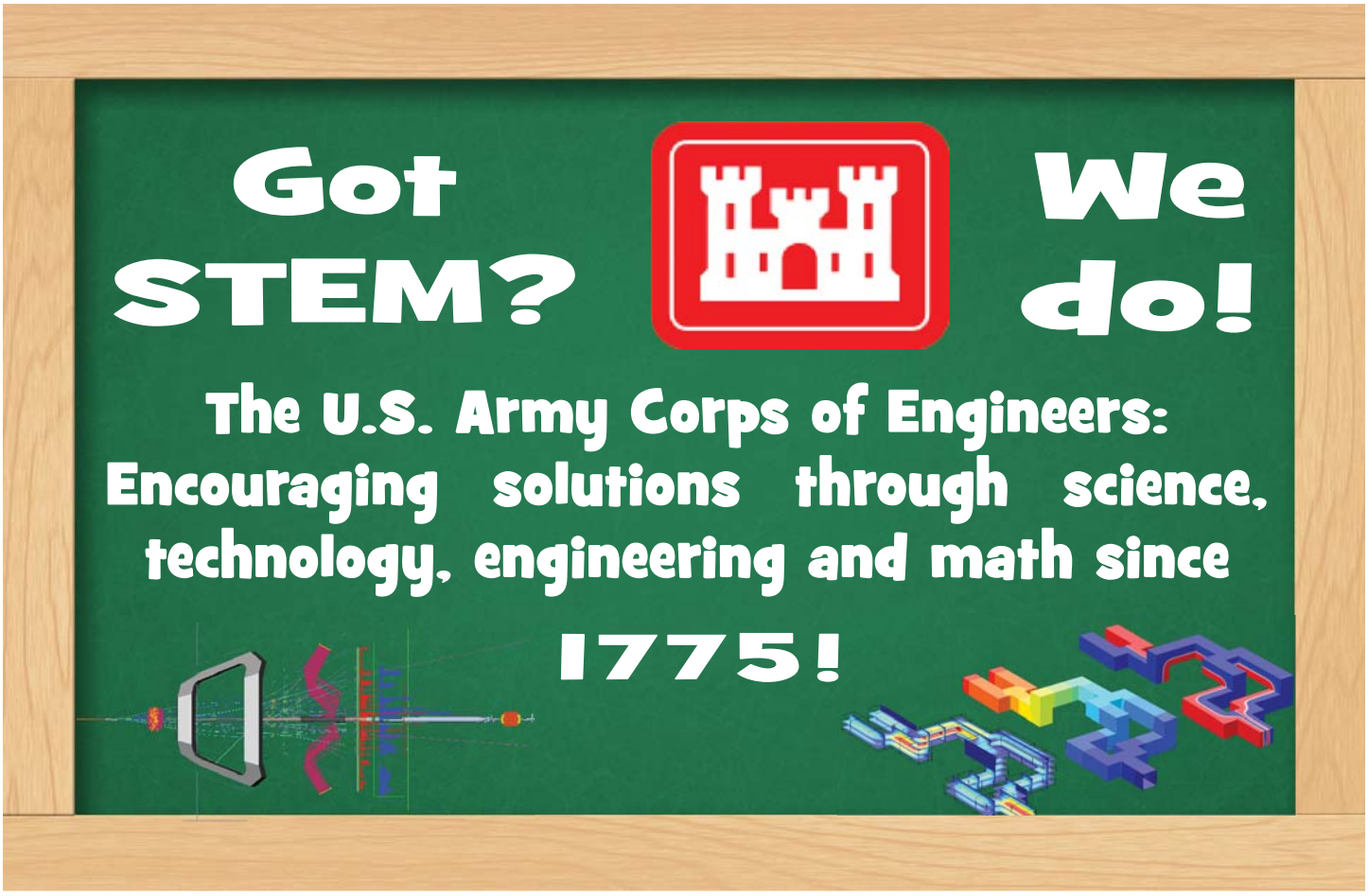
- Have discussions with division and the Afghanistan districts about the appropriate time for the Middle East District to assume life cycle project management responsibilities for the Afghan Infrastructure Fund and Military Construction programs.

- Develop vertical strategic engagement plans for foreign military sales customers.
- Support the TAD contingency district closeout mission.
- Ensure that district employees complete the required Army Civilian Education System training.
- Develop a Quality Management System process for workload forecasting.
- Revalidate and gain approval for the Middle East District's enduring organizational structure, based on current and future mission requirements.
- Accumulate, document and analyze pre- and post-award costs for programs costing less than $5 million.
- Develop the means and methods for effectively delivering small projects (less than $5 million).

USACE Campaign Plan Goals

- Deliver support to the Nation that prevents conflict, shapes the strategic environment, wins campaigns through engagement, and is responsive to disasters.
- Deliver enduring and essential water resource solutions to DOD and the Nation.
- Deliver innovative, resilient, sustainable solutions to DOD and the Nation.
- Build great people and strong teams to sustain a culture of collaboration, innovation and participation to shape and deliver strategic 2020 solutions.

"MY INTENT IS THAT WE LEAD THE CHANGE AS WE ANTICIPATE AND PREPARE FOR THE FUTURE."



Going Green
USACE SUSTAINABILITY

Creating and maintaining conditions under which humans and nature can exist in productive harmony for generations to come.

Green Dream Team Award

This award recognizes exceptional leadership by an interagency green team to effectively place a Federal sustainability idea into action. The selected team will have clearly demonstrated that its collaboration efforts were integral to the successful implementation and institutionalization of the idea within its office, agency, or agencies and will highlight collaboration through Regional Councils, Federal Executive Boards, workgroups or other interagency organizations.

BUILDING STRONG®
www.usace.army.mil/Missions/Sustainability