

BUILDING UP BULGARIA

ALSO IN THIS ISSUE:

USACE GOES GREEN

CLARIFYING ABG 75

GEORGIA BORDER CONTROL

**US Army Corps
of Engineers**

Europe District



Vol. 7 • Fall 2009



THE COMMANDER



What an amazing year!

Through my travels this fiscal year to the far corners of the District and countless customer interactions, I can personally attest to our extraordinary accomplishments as a District Team. I've seen firsthand our team's ability to continually deliver innovative, resilient and sustainable solutions to customers, enabling them to overcome their toughest engineering challenges while enhancing the quality of life for our warfighters.

Year-end closeout for FY09 is particularly telling. We rose to the challenge that the Chief of Engineers laid out for all of us and were able to deliver on what we promised, bringing in tens of millions of dollars in new contracts to the district.

Because of our focus on building and cultivating a competent and disciplined team during this past year, we are now more than ever ready, organized and equipped to climb the next mountain of challenges that lie before us in FY10 and beyond.

I fully expect our mission will grow again this coming year. We're expanding our horizons through the support of new missions in new frontiers for both EUCOM and AFRICOM – including projects in Estonia, the Netherlands and Zambia. We're staying flexible in our support to the U.S. Missile Defense Agency and 7th Army, and we're continuing to strengthen relationships with our garrison and air base partners across Europe. Finally, we are just beginning our planning efforts to support the design and construction of a potential \$1 billion-plus hospital complex for the Department of Defense.

Our diverse workforce in Europe has grown roughly 25 percent since last year and all of the recent arrivals have quickly assimilated into the District teamwork culture. At the same time, we've become more efficient by standardizing our business processes and working to eliminate redundant systems and processes.

We're also focusing on leveraging future-

oriented engineering tools and standards like BIM, LEED and the USACE Quality Management System. By integrating these benchmarked systems into our workplace, we're positioning ourselves to deliver more effective, more enduring, and more sustainable solutions now and in the future. During the coming fiscal year, we will unequivocally showcase these abilities.

Finally, I want to continue to emphasize the importance of our priority effort to support contingency operations. By the end of the calendar year, we expect to have eight volunteers deployed to Afghanistan and Iraq. We will also have 18 folks trained and ready to support FEST operations whenever, wherever called upon.

I am incredibly proud of these great folks – volunteers, all – who have risen to the challenge to deliberately live the Army values. I encourage all of you to go beyond the bounds of our "normal" business to support these contingency operations.

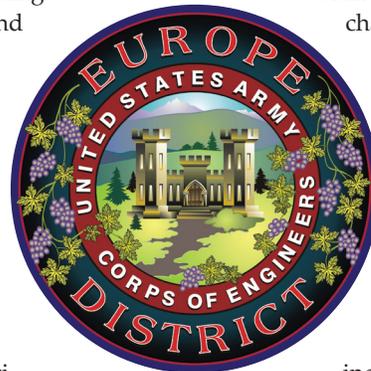
Our volunteers have already planned the launch of a new district in Afghanistan where the workload has increased \$1 billion in the last year and is expected to increase another \$2 billion in FY10.

I know the urgencies of daily work make it difficult to volunteer, but I assure you it is worth it. These are big missions, big projects and big opportunities to gain experience, develop skills and make a difference. This is truly an investment in yourselves and in the lives of those we support. (And supervisors, I guarantee you will get back a better employee than the one you sent!)

I continue to be impressed with what you accomplish every day. Embarking on the mountain of projects that lie ahead, embracing new systems, and covering for those who are supporting contingency operations won't be easy. But experience gives me faith in your abilities. Jump on board! It is going to be a great ride!

BUILDING STRONG! Essays!

John S. Kem
COL, EN
Commanding





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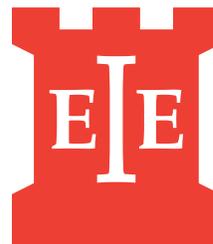
BUILDING INFORMATION MODELING | DIGGING UP THE PAST



ON THE COVER

PETAR KOPANKOV, A QUALITY CONTROL ENGINEER WITH THE EUROPE DISTRICT, LOOKS OUT OVER THE CONSTRUCTION SITE OF THE \$49.5 MILLION FORWARD OPERATING STATION BASE CAMP IN BULGARIA. THE CAMP IS DESIGNED TO HOUSE AND TRAIN ROUGHLY 2,500 SOLDIERS. CONSTRUCTION IS EXPECTED TO BE COMPLETED IN LATE 2010.

Photo By Carol E. Davis



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USACE GOES GREEN

USACE engineers in Europe LEED the way in local construction projects

By Rachel Goodspeed

In today's economy, investing in sustainable design is a smart construction strategy.

According to a 2008 U.S. Green Building Council report, green buildings can save millions in annual operational costs, generate new jobs and reduce greenhouse gas production.

The U.S. Army Corps of Engineers has championed this effort by creating a policy in January 2008 to implement Leadership in Energy and Environmental Design, or LEED, in Army mili-

tary construction projects.

But designing and constructing certified "green" facilities in Europe is a challenge for USACE Europe District project and program managers, who are held to the German government's construction process under ABG 75, said Rich Gifaldi, sustainable engineering manager for the Europe District.

"We have special circumstances here in Germany," said Rich Gifaldi, sustainable engineering manager for the Europe District. "Although the German

standards of design are very advanced in terms of sustainability, the documentation required by the USGBC to attain LEED certification is going to need some coordination between us and the German Construction Agencies."

Not only are German contractors unfamiliar with LEED, there are fewer than 70 LEED-accredited professionals among them in all of Germany, Gifaldi said.

This unfamiliarity has created a challenge, said Brian Ballweg, Europe District's LEED Accred-



As the District continues to build LEED into the design and construction process, the LEED rating will replace the SPIRIT certifications for military construction such as Grafenwoehr's joint Commissary/Post Exchange mall, which was certified SPIRIT gold. *U.S. Army Corps of Engineers Courtesy Photo*



ited Professional. So he, Gifaldi and Eric Garcia, the District's sustainability design and development lead, formed a team to educate District employees and contractors on how to satisfy LEED requirements during design and construction.

The team is sharing their knowledge at official meetings and at unofficial brown bag luncheons around the District. The next big meeting will be a District-hosted LEED workshop November 17-19 at the NATO School in Oberammergau, Germany, where participants will be

introduced to the LEED rating system and learn about the entire certification process.

"There are going to be some extra steps in the process to ensure our projects are meeting the Army's requirements," Ballweg said. "This is an evolving process and it's important that the German contractor and District's resident engineer are on the same page."

The biggest challenge, Gifaldi said, is incorporating the process of documenting LEED points into the German design

and construction process, which is determined by ABG 75, an agreement between the U.S. and German governments.

To garner a LEED certification, points are awarded according to a 100-point scale that recognizes a building's future lifecycle performance in key areas such as water efficiency, energy consumption and carbon emissions reduction, according to the USGBC Web site.

Currently, the District has 64 projects on the books aiming for a LEED certification through fis-

cal year 2013, including an auto skills center at the Wiesbaden Army Airfield aiming for LEED silver certification.

"Project Development team members need to know what LEED is and the reason it's so important," Gifaldi said. "This is a real requirement by both the Army and the U.S. government and the policies are in place, but we need them to help us determine the best way to implement these requirements into our system. In the end, the goal is to construct a sustainable structure." 



Stay connected!

In response to suggestions made in our 2009 readership survey, we're proud to announce the distribution of *EiE Express*, our new monthly, digital newsletter about Engineering in Europe.

Inside you'll find:

- ✓ Stories from around the District, Corps of Engineers, Army and DoD
- ✓ Links to stories from outside media outlets about the District
- ✓ Videos and photos
- ✓ Job and solicitation announcements
- ✓ And much more ...

Subscribe today!

If you'd like to receive the latest and greatest from around the Europe District every month, e-mail us at dll-cenau-pa@usace.army.mil. You can also find it on our Web site at <http://www.nau.usace.army.mil>.

DIVERSITY FROM THE START

Every year, students from the AMIE program stop in Wiesbaden for on-the-job training with USACE professionals

Story and Photography by Carol E. Davis

Six different students, six different pathways, all leading to one program in one European city.

The Advancing Minorities' Interest in Engineering Program was in full swing again this summer as six engineering students from two historically black colleges and universities made their way to Wiesbaden to work with the U.S. Army Corps of Engineers Europe District.

Five students from Morgan State University and one from Tennessee State University not only spent the summer receiving on-the-job training from engineering professionals, but also visited fellow Morgan State alumnus, Gen. William "Kip" Ward, commanding officer, U.S. Africa Command.

"Programs like AMIE are indeed important and relevant for several reasons," said Ward. "[They] encourage an important segment of our youth to pursue careers that will allow them to add tremendous benefits to our society. They contribute unique perspectives that enrich our workforce in the corporate world. And [we] openly welcome their new ideas and tremendous energy."

After the visit, the students went to the general's home for light hors d'oeuvres and to meet the general's wife, Joyce, who is also a Morgan State alum.

"It was encouraging to see the opportunities Morgan can afford you if you utilize them, as well as the life lesson the couple demonstrated," said Niaja Farve, AMIE student. "Every occurrence in life is an opportunity and it is always about how you take advantage of what is placed in front of you."

Ward said that having an opportunity to host students from his alma mater "gave me and my wife a chance to let them know how proud we are of them and encourage them to strive to be the very best they can be."

During their 10-week internship, students visit construction sites, attend briefing, participate in project planning and management. They are provided hands-on technical knowledge which differs from the academic knowledge they get a college. And they give the district a fresh perceptive and outlook.

"The district's partnership with the AMIE organization continues to be a rewarding opportunity for the students but for district personnel as well," Elaine Lawson, District AMIE program coordinator. "District personnel serve as mentors, teachers and leaders. The students bring a willingness to learn."

Donald Fuller AMIE intern, Morgan State student, said, "This is not one of those internships where you are making copies and running down the hall getting coffee. They value my opinion and I feel like a real employee; now I don't have to wait until I graduate to know what that feels like."

For Robin Bratcher, an industrial engineer major from Morgan State, participating in the program is an opportunity to put academic knowledge to real-world application.

"I took a programming class last semester. We would get deducted for what at the time seemed like the simplest thing. But you can really see how it relates when you're in the work place," said Bratcher. "The smallest missed detail can really mess up the bigger project."

Working for the District has been both professionally and personally enlightening because she found her passion for project management and realizes the world is so much bigger than just the United States.

"It has opened my mind, expanded it to new ideas, beliefs and exciting new cultures," said Bratcher.

Europe District has partnered with AMIE since 1996.

"This is my first experience with the AMIE program," said Tammie Stouter, Wiesbaden regional program manager, Europe District. "These interns bring an excitement and a quest for knowledge that we don't see every day."

The purpose of AMIE is to expand corporate, government and academic alliances. The program recruits, educates and trains minority students pursuing engineering careers.

AMIE uses mentorships, international internships, and scholarships to motivate students to keep them focused on their common goal of becoming engineers and diversifying the workforce. ■



Students participating in the 2009 Advancing Minorities' Interest in Engineering program visited construction sites throughout Europe to see the practical application of engineering.



Quality Across The Board

USACE standardizes business processes with Quality Management Systems

By Rachel Goodspeed

Geographic diversity, customer variety, organizational structure differences and a presence worldwide have led to varying business practices established across the U.S. Army Corps of Engineers.

This became even more apparent when USACE employees deployed to support operational missions post-Katrina, and in Iraq and Afghanistan. They realized everyone had a different way of doing business, said Ken Turner, a program manager with the Europe District. Imagine personnel for 40 districts coming together and everyone having a different way, sometimes the wrong way, of doing a standard business process.

“Because they did things slightly different from each other, they had to take time away from conducting business to standardize their team practices,” Turner said. “Because business processes around the Corps had not been standardized, documented properly or readily available, the team replacing them would have to take a chunk of time away to standardize the team again.”

USACE decided to initiate a quality management system throughout the divisions, labs and centers of expertise to document and consolidate all business processes in one location so every employee has access to them.

Access issues related to many

offices storing business processes on their own Intranet site is no longer a barrier with QMS. In addition, the QMS is interactive, meaning any person can comment on any process for improvements or corrections at any time. Once comments are received, the responsible process champion will evaluate comments, coordinate changes with affected offices, and improve and publish the revised process. The QMS follows the ISO 9001 process of “Plan-Do-Check-Act” cycle for continuous improvement.

Currently, both final and draft processes are documented on a Web-based system using Microsoft Sharepoint technology.

“Then everyone will be working off the same sheet of music making us more efficient,” said Turner, who is the District’s QMS manager. “Not only is time saved, but employees who move from one district to another can pick up where their predecessors left off without familiarizing themselves with the procedures.”

The goal of QMS is to standardize business practices to increase efficiency, effectiveness and product quality with minimal on-site training, according to the new USACE QMS Web site.

The District’s efforts are teamed up with the North Atlantic Division, whose vision is to implement QMS within NAD in a way that instills the concepts of quality into everyday operations and allows for continual improvement, according to the NAD QMS Web site.

NAD’s goal is to continually improve processes and put training in place to ensure employees are working within pertinent regulations to deliver quality products and services, said Lt. Col. Anela Arcari, Europe District’s deputy commander and the District’s QMS champion.

“QMS is a valuable asset to

work with each other across the spectrum, and new employees will have a resource available to them,” he said.

Due to the nature of the District’s locality, some processes will be adjusted to keep in accordance with German law, Turner said. So once the documents are finalized, supplemental practices will also be submitted and sorted according to district.

The next step in the process is to work with NAD and HQ USACE to develop procedures for managing QMS, including updating and revising current processes as well as creating new processes when needed.

“We envision this as a dynamic system allowing us to respond to changing missions and lessons learned while quickly educating the workforce when new processes are needed,” Turner said.

Once the system is set up, periodic quality assurance checks will be made to determine how closely our documented processes match how we are conducting business, Arcari said.

“Training will be available eventually, but until then, I encourage District employees to check out the Web site to make comments and take the tutorial that is available,” Arcari said. “Standardized business processes available in QMS will provide the framework for how we consistently deliver quality products and services to our customers.” 

Working In Harmony

“EVERYONE WILL BE WORKING OFF THE SAME SHEET OF MUSIC”

— KEN TURNER

the Corps of Engineers – not only will it help us efficiently deliver on our promises to customers, it also demonstrates our commitment to excellence,” she said.

NAD recently completed a gap analysis review on published national standard business processes to compare how the Division and Districts are conducting business to the baseline procedures and is waiting for the results of that analysis, Turner said.

“By standardizing these practices, employees will be able to



Building Up Bulgaria

USACE oversees construction of new training base

Story and Photography By Carol E. Davis

Sitting in a sunlit office poring over a Cyrillic-scrawled map of the Bulgarian countryside that lies just outside his window, Pat Klever, the resident engineer at the newly formed Bulgaria field office, is adapting to his new environment – one that he’s busy planning for incoming U.S. Soldiers.

Klever and his growing team oversee the \$49.5-million contract to construct expeditionary structures at a 135-acre forward operating site near the city of Sliven, Bulgaria, that will support about 2,500 soldiers during joint military training activities. The site will include 77 facilities in all, including 23 barracks buildings, a chapel, post office, fitness center, several administrative, operational, maintenance, storage, dining, and medical facilities, and basic infrastructure such as utilities, roads, walkways, and parking areas, all of which are expected to be used for at least 20 years.

In effect, they are creating a military training base that resembles what U.S. Soldiers find at their home bases.

“The main priority of the FOS is to provide a training platform where U.S. and Bulgarian Soldiers can train together, learn from each other and learn a different culture,” said Armando Solis, acting-area engineer for Eastern Europe.

Living and working in a culturally different country where nothing, including the alphabet, is familiar would create a challenge for more people, Klever said. But he believes he is in right place at the right time.

“I love muddy-boots construction management and I’ve been happiest in my professional life when I’m doing this,” said Klever who

spent about 10 years in the Army and 32 years total as a government employee during various engineering jobs. “I love it here and I feel as though I’m making a real difference here. I have a great team – Mehdi Mizani, the project engineer who set up the initial office, Petar and Ivan, two local national engineers, Magi, my local national management assistant, and Kazmierz Kordecki, a construction representative on loan from Fort Huachuca. The only thing missing in Bulgaria is my wife. Then it would be perfect.”

Klever, a Toledo native, said his journey began when Ron Miller, a math teacher at St. John’s Jesuit High School, asked him what it



“Every time I come back to the field of construction management, I wonder why I ever left it,” said Pat Klever.



NEVO SELO, BULGARIA

was he was passionate about. When Klever responded drawing and building things, Miller suggested he consider engineering. It has been Klever's focus ever since.

A former Boy Scout and West Point cadet who later transferred to University of Toledo, Klever said his journey thus far – his “crucible” – has taught him to think independently and creatively. “I believe that engineering is not a degree, it's not a profession; it's a thought process,” he said. “West Point and the Boy Scouts taught me to look at the total solution. ... Anyone can design something but only an engineer can look at all of parameters, cost, time and aesthetics and come up with the best solution.”

Finding solutions is something Klever said he does on a daily basis in Bulgaria. “Everything is new here,” Klever said. “We are blazing new ground with subcontractors who are not used to U.S. or even European Union standards, with employees who have different ideas about construction, and with obtaining the sheer quantity of materials necessary to make this all happen on time.”

Magdalena Rabina, contractor management assistant, said: “Here in Bulgaria we are taught that everything we do, we have to come to the same result. But it turns out that the way we are used to doing things and the way Americans way is quite different, and it's nice to have Pat to ask advice or explain things.”

Dream Job

“I LOVE MUDDY-BOOTS CONSTRUCTION MANAGEMENT, AND I'VE BEEN HAPPIEST IN MY PROFESSIONAL LIFE WHEN I'M DOING THIS”

— PAT KLEVER

Contracting differences are not the only differences to deal with in Bulgaria. Here, something as simple as the way Americans shake their heads to indicate yes or no is the exact opposite. All of which makes construction management in Bulgaria challenging.

“Pat is doing a great job,” said Solis. “He has a warmth, which is needed to do the job completely, he's a good engineer and most importantly he's patient,” said Solis. Patience is exactly what it will take to see the project through to completion. The facility is expected to be complete late 2010.

“I couldn't do it without the whole team. While I am concentrating on contracting issues, Mehdi takes care of the day-to-day quality issues. Together, we complement each other very well. And Petar, Ivan, and Magi really smooth the way with translating both the language and the technical standards to something everyone can understand. Without their help and support, doing this job would be like trying to swallow a softball wrapped in barbed wire. Together, though, we make an awesome, successful team.” ■



Photo by CH2MHILL

Construction continues on the \$49.5 million forward operating station Bulgaria Base Camp in Novo Selo. The base camp is designed to house and train 2,500 soldiers, and will provide 77 permanent buildings — 23 barracks, five battalion and one brigade headquarters, six company operations facilities, a chapel and much more.



CLARIFYING ABG 75

Executing a construction project in Germany is as easy as A, B ... G?

By Rachel Goodspeed

ABG 75, or Auftragsbauten Grundsätze 1975, is an agreement between the U.S. and German governments that defines the process of how to accomplish construction works in Germany, both the direct and the indirect processes.

The direct process is used by the U.S. to carry out projects by letting contracts directly to industry or using troop or in-house construction assets. The indirect process is used to order the German Construction Agency to accomplish construction projects on behalf of the U.S. using their own contracting and execution procedures.

But for members new to working with the GCA, ABG 75 is a challenging process.

So the U.S. Army Corps of Engineers Europe District and Installation Management Command-Europe hosted the AGB-75/VOB Training Conference August 25 and 26 at the Polizeipräsidium in Wiesbaden, Germany, to familiarize attendees with the ABG 75 process and provide guidance in establishing better working relationships

with their German counterparts.

Members from the Europe District, IMCOM-E, U.S. Air Forces in Europe and various garrison Directorates of Public Works, more than half with less than two years experience working with the GCA, received training from leading experts from IMCOM-E, the District and the industry.

Presenters included Prof. Dr.-Ing. Lothar Ruf from RKS Ingenieure (Engineers); Lee Davis from IMCOM-E; Dave Nichols and Bernhard Ochsenreither from the Europe District; and Dipl.-Ing. Heidi Meissner and Dipl.-Ing. Erhard Frey from the Europe District.

Constructing a project in Germany is not the same as in the U.S. and with so many new people, it is essential they receive an overview of the host nation construction contracting environment they'll be operating in, said Kris Hurst, chief of the District's project management branch who sponsored the training.

"The training was a mile wide and an inch deep, but in practice they will have to go deeper into many of the topics presented,"

Hurst said. "Now they have the resources, both materials and personnel, to help them through the process."

Under ABG 75, the U.S. contracts with the German government construction agencies, or Bauämter, to execute construction works of all types to include some maintenance and repair projects.

Newcomers quickly find they have a lot to learn and even those with experience are seeing changes to the process, said Erhard Frey, assistant branch manager for Host Nation programs who was instrumental in organizing the training.

"There have been some changes to ABG 75 and it's good for them to know not only what those changes are and when they go into effect, but also how they will impact their work with the Bauämter" Frey said. "This is a complex process and these men and women have to facilitate quality completion of projects under German laws that also have to meet U.S. requirements."

Learning how the German government approaches construction contracting and how

the ABG 75 process works is essential to successful project management, said Rick Flansburg, a senior project manager who has been with the District for about six months.

"We need to know how German laws affect the construction process and we need to learn better practices in working with the Bauämter. This training provided good guidance all around," Flansburg said. "We [U.S. agencies] have money and requirements; the Bauämter have contracting capabilities – neither can be successful without the other and so it's imperative that we develop cohesive relationships with them."

Because there was such a high demand for the training, the District is working with IMCOM to host another session in January and will continue the training on an annual basis, Hurst said.

"The ABG 75 forms the underlying framework to construct facilities for our men and women in the U.S. forces in Europe and their families so it is important that we're all on the same sheet of music to deliver quality products to our customers," Hurst said. ■

Quenching The Caucasus

USACE Improves life in Armenia by providing clean water

Story By Justin Ward, Photography by Nana Kachelshvili

More than most people, Armenians value water.

In the late Bronze Age, the Assyrians dubbed Armenians Nairi, or the people of the lakes and rivers. Every July, the country celebrates National Water Splashing Day, called "Vardavar," when citizens douse each other — sometimes total strangers — with bucketfuls of water. In fact, one of the most popular sites in the country is Lake Sevan, one of the largest high-altitude lakes in the world.

And yet clean water is scarce.

About 50 to 60 percent of clean water is lost due to breaks, leaks and gaps in the country's disjointed network of pipes. In the capital, Yerevan, water flows from the tap only a few hours a day. The fear of water contamination is real.

To combat this crisis, the Office of Defense Cooperation in Yerevan teamed with the U.S. European Command and the U.S. Army Corps of Engineers to execute six fully functional, turnkey water systems throughout the country as part of a single humanitarian assistance project. Through EUCOM, ODC gained approval, funding and ultimately the Corps of Engineers' support for this mission.

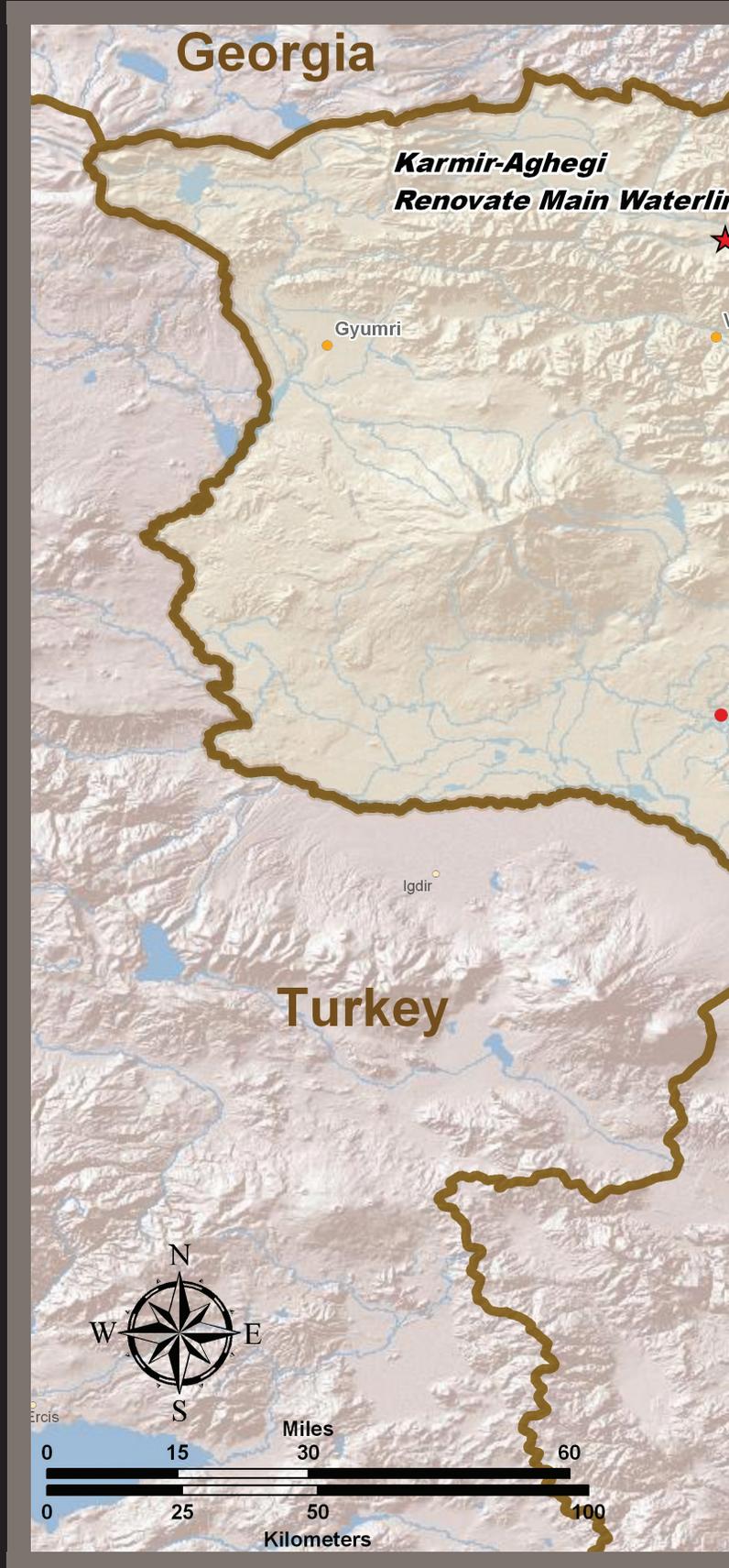
"These are six separate projects that help six separate communities throughout the country," said Charles Samuel, Caucasus Project Office chief, who is overseeing design and construction. "Together, they make a statement that the U.S. values its friendship with Armenia and is willing to help them in any way we can. I'm just happy to be a part of the team making that happen."

In accordance with current host nation building standards and codes, the \$600,000 undertaking — collectively called the Renovation of Public Water Supply System — seeks to partially or fully reconstruct the existing water supply systems near the villages of Aghavnavank, Antaramej, Karmir-Aghek, Sevkar, Ttou Jour and Vaghashen.

This includes disassembling, rehabilitating and constructing reservoirs, fences, catch basins, wells and roughly 14 miles of inter-community pipelines to assist the villages, which have a combined population of just over 9,000.

"We're talking thousands of people who — some for the first time in their lives — will now have clean, fresh water," said Samuel. "That, to me, is a truly amazing contribution."

The project was introduced by CARD, the Center for Agribusiness and Rural Development, a nonprofit, nongovernmental organization originally created by the U.S. Department of Agriculture to solve agricultural and irrigation problems in Armenia. Executing the project is CESCO Co. Ltd., a construction and engineering services company based in Yerevan.





The Office of Defense Cooperation in Yerevan teamed with USAREUR and USACE Europe District to execute six fully functional, turnkey water systems throughout the country. The \$600,000 undertaking — collectively called the Renovation of Public Water Supply System — seeks to partially or fully reconstruct the existing water supply systems near the villages of Aghavnavank, Antaramej, Karmir-Aghek, Sevkar, Ttujur and Vaghashen. U.S. Army Corps of Engineers Graphic by Thomas Rodehaver

According to Samuel, CESCO, which normally provides heating, ventilation and air-conditioning services, recently delivered all six projects — on time, on scope and on budget. CESCO's work also included the design, delivery, installation, renovation and connection of utilities.

"We're really very pleased and impressed," Samuel said about CESCO's work. "Their ability to adroitly handle a variety of complicated water problems in a variety of remote regions throughout an already remote country is impressive, to say the least. It's one of our greatest success stories."

In addition to providing an adequate and sanitary water supply to the people of the six remote communities in the mountainous and seismically active regions of central Armenia, the water systems create the potential for an enhanced local economy through increased irrigation, improving the local's capacity to help themselves.

"Building partner nation capacity is our watchword at EUCOM," said Charles Brady, EUCOM humanitarian assistance program manager. "We are fortunate to be able to contribute to an improvement in Armenia's ability to help people."

Recently, the World Bank, U.S. Agency for International Development and others financed millions of dollars in water system rehabilitations in Armenia, said Maj. Edward Keller, bilateral affairs officer with ODC. While these have led to improved supply, quality and financial viability of the water utilities, they have mostly focused on Yerevan.

"This water project extends EUCOM's reach of assistance [to] these villages," said Keller, who is serving as part of Kansas' Army National Guard's State Partnership Program. "[We] have also been active with renovations to schools and hospitals."

These humanitarian assistance projects, Keller added, were started by Lt. Col. Doug Peterson and Maj. Michael McCullough, both ODC chiefs and former EUCOM staff officers who assisted EUCOM in building friendships and positive relationships.

"It is great to be associated with such superb leaders who understand how to carry out EUCOM's strategy," said Brady. "I can't say enough about how important the ODC chiefs and their teams are in carrying out DoD's equities in the AOR and in particular the HA [humanitarian assistance] projects."

The Renovation of Public Water Supply System project is one of several the Europe District is executing in the south Caucasus. Other projects include a \$1.1 million renovation of a forensics lab in Yerevan as part of the Department of State's International Narcotics and Law Enforcement program, and two high school construction projects in poverty-stricken regions of Azerbaijan, valued at about \$1.3 million.

Armenia and Azerbaijan are both U.S. coalition partners that have allowed unconditional use of their airspace for support to operations in Afghanistan. Both countries have sent troops to support overseas contingency operations in Kosovo and Iraq, with Azerbaijan being the first Muslim nation to do so. 



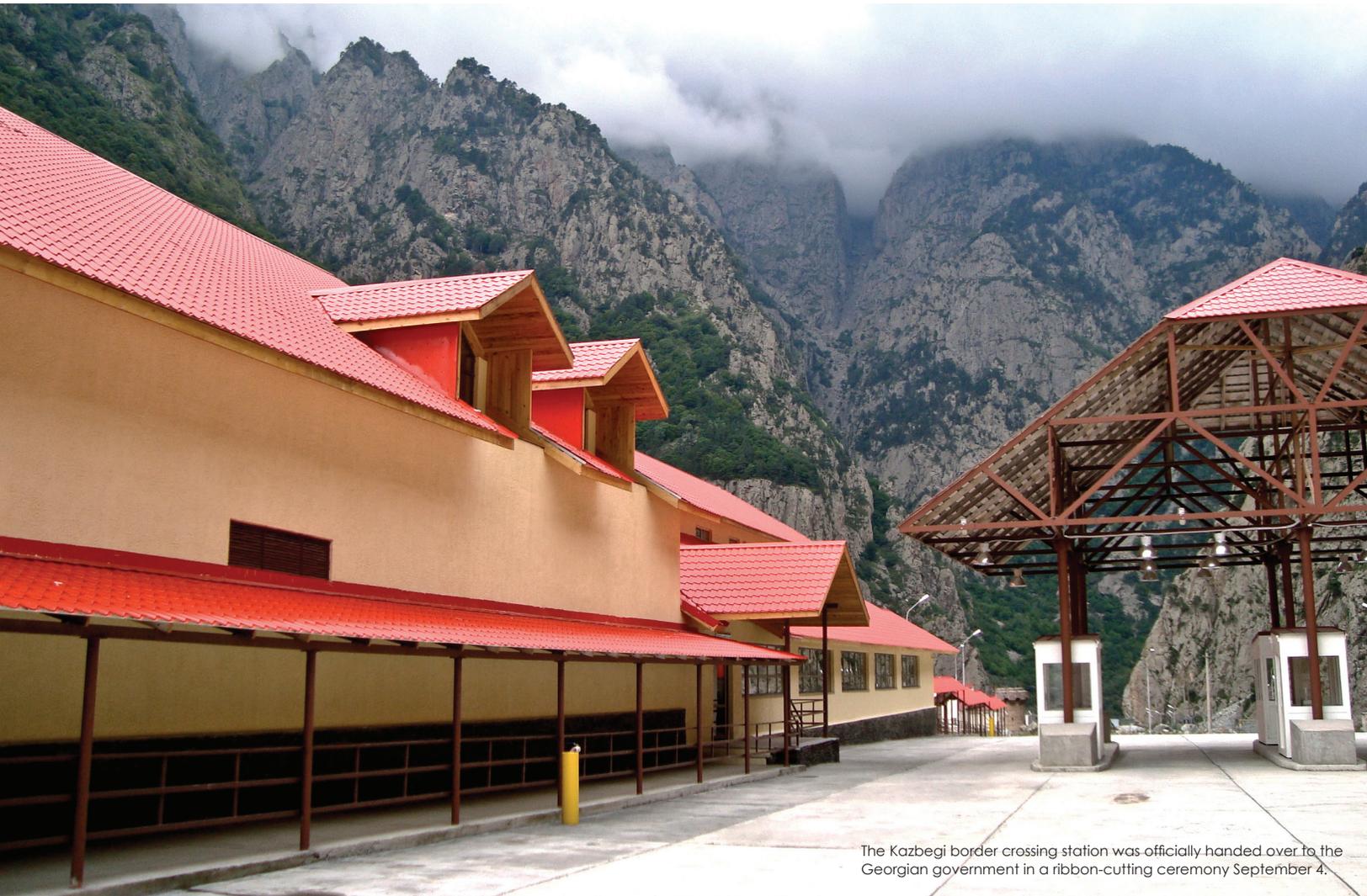
Making a Splash

"WE'RE TALKING THOUSANDS OF PEOPLE WHO — SOME FOR THE FIRST TIME
IN THEIR LIVES — WILL NOW HAVE CLEAN, FRESH WATER"

— CHARLES SAMUEL



Armenia, a mountainous country in the Caucasus, loses roughly 50 to 60 percent of its clean water due to leaks, breaks and gaps in the country's disjointed network of pipes. Renovations to the main waterline of Antaramej, Armenia, includes constructing a basin to capture spring water and placing almost three miles of polyethylene pipe.



The Kazbegi border crossing station was officially handed over to the Georgian government in a ribbon-cutting ceremony September 4.

GEORGIA BORDER CONTROL

USACE hands over sole official border crossing station between Georgia and Russia

Story and Photography By Carol E. Davis

Celebrated in Russian poetry since the days of the USSR, the “Georgian Military Road” was once a major route between Russia and the Republic of Georgia through the Caucasus Mountains traveled by both invaders and traders throughout the years.

But the days of traversing freely through the mountainous route are coming to a close.

Today, nestled among the highest mountain peaks near the Georgian hamlet of Kazbegi, sits a new, \$2.4 million border crossing sta-

tion recently constructed through the help of the U.S. Army Corps of Engineers Europe District.

“Once the Soviet Union fell and the members split apart you suddenly had all of these borders created with no control,” said Wayne Uhl, a program manager with the Europe District.

After five years of construction and a few unexpected challenges, a ribbon-cutting ceremony Sept. 4 saw the handover of the border crossing station to the Georgian government. The facility is the latest of 18 facilities includ-

ing three other points of entry funded under the Georgia Border Security and Law Enforcement assistance program, which seeks to provide Georgian law enforcement agencies with communications equipment, surveillance and detection equipment, vehicles, helicopters and other tools needed to impede illegal trafficking of radioactive materials.

“One of the reasons this area was selected was because of the potential of weapons of mass destruction and the materials used for those weapons to move south through the Caucasus to more volatile areas,” said Uhl, who works in the District’s International

Engineering Center. "The U.S. wanted to help stop the potential flow of these dangerous materials."

In addition, the new checkpoint will provide more traffic lanes, modern search equipment and offices and barracks for the co-located Georgian Patrol Police and Revenue Service.

But the project was not without challenges.

"There were environmental issues with the weather which caused roads to wash out and rock slides," said Stan Young, a construction representative in the Europe District's Caucasus Project Office. "Then in late August 2008, the Russia/Georgia conflict caused more delays. But in the end, I think the client is happy with the facility."

One of the main contributors to the successful completion of the border station was Young and his untiring pursuit of quality

assurance, said Charles Samuel, chief of the Caucasus Project office. He coordinated with the contractor to make sure the project was on budget and within standards or code.

"Stan Young is very forthright and firm with the contractors; at the same time he's flexible when he needs to be," Samuel said. "He brings a wealth of knowledge to the Corps and to my office as well."

For the past nine months, Young, from Pelion, S.C., has overseen the final quality control for the border station while managing other projects including an eight-lane outdoor pistol range in Tbilisi that is expected to be completed in the spring.

"This range is completely for the use of the Georgian police," said Uhl. "What they had here before was completely inappropriate. It was a long distance range for rifles. This pistol range will give them training scenarios

that they couldn't train for before."

Neighboring Georgia's new national police academy, which opened in June, the \$1 million project is also funded by the Department of Homeland Security's GBSLE program.

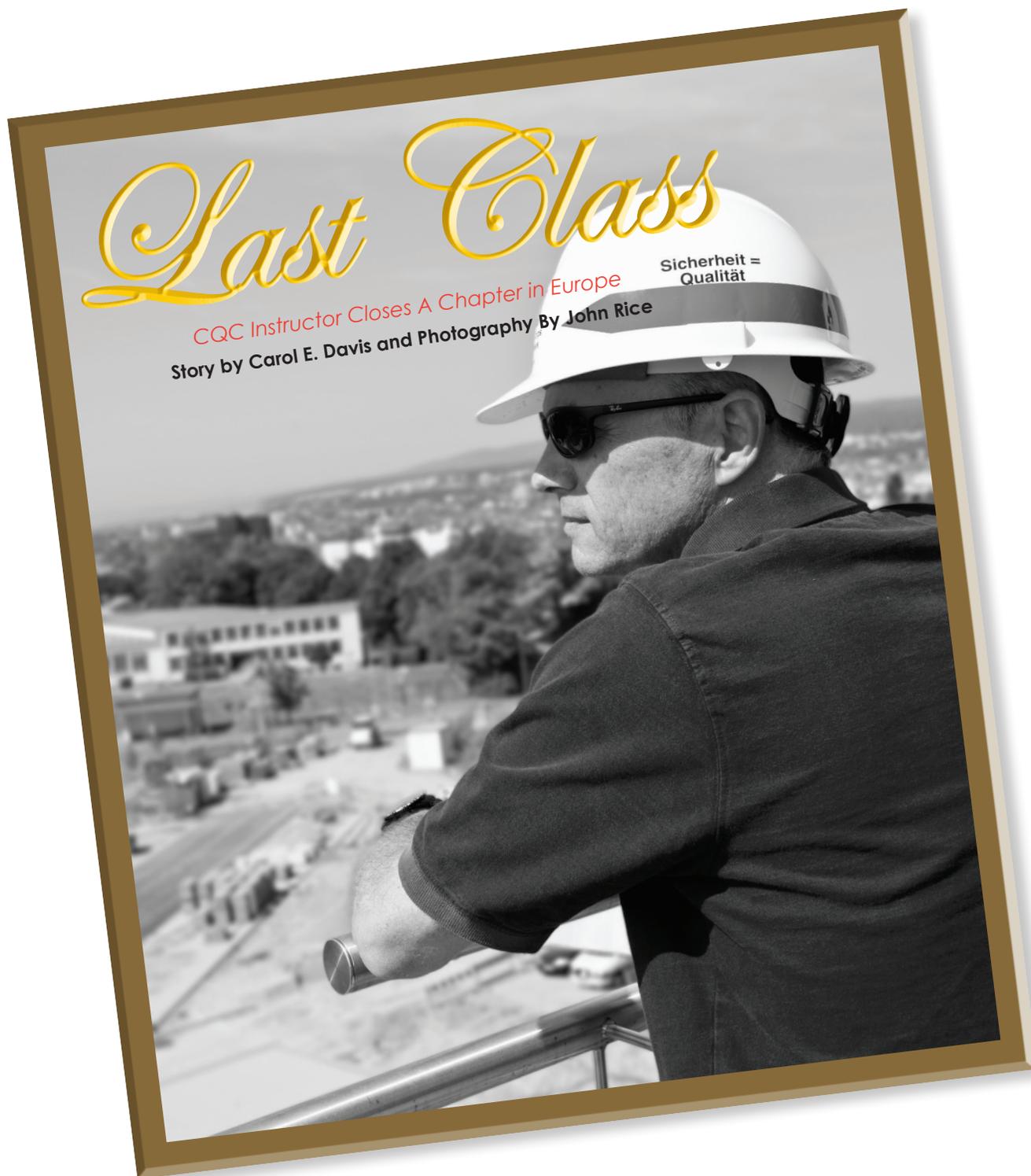
"All of our projects are humanitarian projects through the Georgian government and the embassy," said Young. "We're helping them build up their infrastructure and work toward democracy; and it's very rewarding to be a part of that."

And according to James Kelly, chief of party with the GBSLE program, the government has been very satisfied with the progress.

"I always enjoy working with the Corps," Kelly said. "They are very professional and even though there were some delays [with the border crossing station], I'm very happy with the end product. It's beautiful and will be extremely functional." ■



Although the station will remain closed until the decision is made to re-open the border, once open, it will play a vital role in ensuring safe passage of people and goods.



Michael Dennis has a simple mantra: Deliver quality products to the customer, every time.

During his 23 years in the construction business, including eight working for the U.S. Army Corps of Engineers, this North Carolina native says he has learned a lot about what works and, more importantly, what doesn't work when inspecting projects for a customer.

And since 2004, Dennis has been teaching those hard-fought lessons learned to quality control contractors all over Europe. On July 28-30, Dennis taught his last class in Europe; he will PCS to the States in November.

"I have a lot of case studies of failures, where we have good lessons learned," said Dennis. "I teach them about those lessons. I tell them how it is out there."



WIESBADEN, GERMANY

The Contractor Quality Control course is a requirement for QC contractors on direct contracts for the U.S. military throughout the world. A five-year certificate in quality control is given to graduates of the course, who Dennis said should be well-versed in the three-stage control system, which helps them spot even the smallest deficiency on a construction site.

Quality Instruction

“HE’S FUNNY, ENTERTAINING AND MAKES LEARNING REGULATIONS FUN”

— SASCHA PUESCHEL

According to Dennis, QCs mostly spend their time looking for the larger deficiencies, as they are the ones that can most easily lead to delays and cost overruns. But focusing on those deficiencies may lead to neglecting the smaller ones, Dennis said, which could lead to a failed project.

“The better I can teach the three-stage control system – which is the preparatory, the initial, and the follow-up phase of an inspection – the better these students will manage a contract,” said Dennis.

As a senior construction representative at the Wiesbaden Resident Office, Dennis has worked with dozens of contractors on projects large and small and believes the QC is the most important person on a project.

“A QC is where the rubber meets the road,” he said. “If there is a good QC onsite then the Corps will pass a good product on to the customer. And if the customer is happy, that’s ultimate goal.”

SKE Site manager and QC student Sascha Pueschel said the course tenets will help him manage the contracts for the U.S. military and work according to its regulations.

“It’s necessary to understand the way building sites are managed here because it’s completely different than the building sites outside the military projects,” he said. “So, I really need to know what this course is teaching.”

Pueschel was one of eight graduates in Dennis’ last class. Although he said that learning the three-stage control system, the regulations, and the procedures for controlling project cost and schedule were helpful, he said the best part of the course was getting to know the instructor.

“He’s funny, entertaining and makes learning regulations fun,” said Pueschel.

“The course has been offered by the Corps since the 1970s and will continue to do so after I’m gone,” said Dennis. “I just won’t be teaching it but while I did, I loved it.” 🇺🇸



Michael Dennis, a construction representative with the U.S. Army Corps of Engineers Europe District, has been teaching lessons learned over his 23 years in the construction business to quality control contractors across Europe via the Contractor Quality Control course since 2004. On July 28, Dennis taught his last class prior to his PCS.





BUILDING INFORMATION MODELING IN EUROPE

Between designers, construction contractors and maintainers, underlying information on a project's design can get lost in translation.

Enter Building Information Management, known as BIM.

"There is a common misconception that BIM is just a computer program – BIM is a process," said Joseph McKenna, the U.S. Army Corps of Engineers Europe District BIM manager. "Designers tout money savings, but the real benefit is that customers will be able to maintain their buildings more efficiently."

With BIM, building owners

have the information electronically rather than in stacks of manuals.

And as USACE implements BIM across the divisions, the District is beginning to require German government construction agencies, or Bauämter, to use the system on a limited basis.

Right now, the District has two trial projects using BIM – a child development center at Landstuhl and a youth services center at Katterbach.

"As the Bauämter and designers become more familiar with BIM, projects selected will be progressively more complicated leading up to medical facilities

– one of the most complex types of buildings," he said.

McKenna said he and other BIM managers around the District will be tracking these projects closely.

"Now we just have to get everyone in the District up to

speed with the system so we can continue to integrate more parts of the process into our projects," he said. "It won't be an easy transition, but we were able to make the transition from drawing on paper to CAD, so I think we'll be able to make this transition."



Brian Ballweg, an architect with the Europe District, shows Wiesbaden Middle School students how BIM and math work together. Photo by Rachel Goodspeed



Archeologists lay out pieces of decorative brick and pottery, coins and raw lead unearthed at the Wiesbaden construction site. Photo by Rachel Goodspeed

DIGGING UP THE PAST

is nearby and a Roman army training camp is nearby making it the perfect place for a Roman settlement," he said.

As foundation work began on the \$133 million project, managed by the U.S. Army Corps of Engineers Europe District, archeologists from the German state of Hessen and the university began excavation efforts.

So far, remnants of a stone wall, pieces of decorative brick and pottery, coins and raw lead have been unearthed. However, Schnell said it will take some time before they know exactly what they found.

"There is no useful stone left here. During the medieval times, people from nearby villages would take the stone away to

build their own homes and walls," he said.

Dr. Guntram Schwitalla, an archaeologist with the State of Hessen, estimates the ruins to date back to the second or third century after Christ.

Although they could possibly date earlier, the team is waiting for the results of carbon dating.

"Often ruins are not clearly defined," he said. "The Roman camps were generally only here for two or three weeks, and then they would take everything with them when they left. So generally there isn't much left for us to find."

So far, Schnell said they have not found anything that would cause them to halt construction.

Almost 2,000 years ago, Roman military bases were established along the Rhine River, including one in Mainz – a large Roman city known as Moguntiacum. Because of its strategic location, historians surmise the base housed as many as four Roman legions.

So it was no surprise that archeologists discovered Ro-

man ruins amid an Army family housing construction project at the Wiesbaden Army Airfield.

Not only is the Main-Nidda road nearby – a Roman road known to be used to transport soldiers and supplies – the area is ripe for agricultural opportunities, said Guido Schnell, a University of Mainz student supporting the excavation effort.

"There's a river nearby, the soil is good, a transport road



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