Engineering IN EUROPE

One environmental success after another

Corps' team lessens environmental impact at Camp Bondsteel, manages Europe's largest "fuel farm"

Digging oases in the Sahara

American engineers to oversee the construction and renovation of AFRICOM-funded humanitarian assistance "oases" in the Sahara

US Army Corps of Engineers®
Europe District
Vol. 4 Winter 2009

Building strong in 2009! NAU geared for growth, ready for new challenges

Happy New Year. 2009 is a year filled with promise, opportunities, and challenges for the Europe District. It is also a fitting time to reflect on our recent accomplishments and prepare ourselves for the future.

More than ever before, the nation and our allies called upon the Europe District in 2008 to respond to new challenges on new frontiers. You all responded with the professionalism, teamwork, and sense of pride that are hallmarks of this district. We remain an organization of choice for our strategic partners.

Our overall program exceeded our 2007 efforts across the board, with Installation Support in particular growing by over 50 percent.

Most illustrative of our collective work was our construction placement, with the District turning over 31 major facilities and 100 small- to medium-sized renovation projects in 2008, totaling about $521 million. These projects included control towers, munitions maintenance facilities, inspection stations, schools, child development centers, a host nation base camp, 155 renovated Army and Air Force family housing units, and numerous other key renovations for garrisons across Europe.

2008 was also a record-breaking year for work in Eastern Europe, where we worked on 75 new projects in nine countries totaling more than $150 million. The lion's share of this work took place in Romania, where District employees like Armando Solis and Charles Bulla managed the construction of barracks, company and battalion headquarters, and community support facilities built to sustain up to 2,500 troops on six-month rotations in support of the USAREUR-led Joint Task Force-East initiative.

And at the District headquarters we made progress as well, adopting a new VoIP (Voice over Internet Protocol) phone system, migrating to Office 2007 and SharePoint 2007, and starting our first Leadership Development Program with a diverse set of six enthusiastic employees — Angel Acosta, Vanessa Bauders, Klaus Fiedler, Okan Nalbant, Charles Samuel, and Francisco Torres.

We're now well positioned to seize new opportunities. Our workload will increase in 2009 and 2010, so we must continue to refine our processes and teaming to achieve even more.

We are just now standing up another JTF-E office to manage construction on the Novo Selo Training Area in eastern Bulgaria. Later this year, we will also establish new resident offices in Poland and the Czech Republic, where we'll support the U.S. Missile Defense Agency's ballistic defense system.

We're still on solid footing in Western Europe, where we continue to expand our portfolio to accept our customers' biggest challenges, like preparing Wiesbaden for the arrival of 7th Army and creating the blueprints for the new $405 million hospital at Landstuhl.

And we're geared for growth in Africa, too, starting to ramp up partnership efforts with the U.S. Africa Command to support exercise-related construction projects, humanitarian assistance projects, and multilateral military-to-military projects.

It certainly is a great time to be part of a diverse and growing district team!

For over 50 years in over 50 countries, our engineers have proven their technical excellence, reliability, and internationality. We've continued to build on our strengths, focus on customer requirements, expand our portfolio, and stay committed to our values.

Our District is strong. And it grows stronger every year.

I am exceptionally proud of your performance in 2008 and am confident that this diverse, vibrant, adaptable, and engaged workforce will prove itself once again in the year ahead.

Happy New Year, Europe District! Essayons!

JOHN S. KEM
COL, EN
Commanding

Contents

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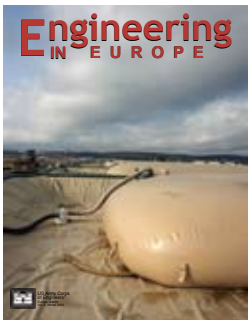


One of 15 50,000-gallon bladders of fuel sits ready to be drained at Camp Bondsteel, Kosovo, where the U.S. Army Corps of Engineers has managed a repeatedly successful environmental program through the local DPW.

Cover photo by Justin Ward

The "Flux" Capacity

Market instability, volatile exchange rates, and variable inflation can cause even the most die-hard construction contractors to back down from working with foreign investors. But through a new contract letting method, the U.S. Army Corps of Engineers Europe District can now ease the market's unpredictable effects.

Milton Ricks

Incirlik Air Base's Phantom Housing complex was one site where District engineers tried to let a contract in foreign currency recently.

Story by Danielle Stephens, Special to Engineering in Europe

When markets fluctuate, exchange rates fluctuate. And when a foreign contractor is awarded a contract in U.S. dollars but buys material and pays his employees in a different currency, his profit is at the whim of that fluctuating market.

In addition to the financial risk, the declining dollar also raises the issue of performance risk, borne when contractors who suffer financial losses reduce staffing, reduce scope, or lower quality standards to meet their targets.

Because of these predicted risks, foreign contractors often artificially inflate their bids, especially if the contract exceeds one year.

This has been especially noted in Turkey, where the falling value of the dollar was compounded by the rapidly inflating New Turkish Lira currency — which has climbed 11 percent in 2008 alone. This combination left contractors who won bids earlier in the year reeling with costly out-of-pocket expenses.

Because of this, said Alex Tomosieski, project manager, bids for a recent multi-year contract to renovate 515 housing units on Incirlik Air Base all came in too high, as contractors were predicting similar trends in coming years.

"The contractors gave up pretty good bids for the near term," said Patrick Daugherty, chief, Atlantic Regional Management Office, Air Force Center for Engineering and the Environment. "However, they priced the work in the out-years very high."

By building risk into their bids for the middle and latter time frames of the contract, explained Tomosieski,

contractors overshoot the maximum allowed price of the contract. And when this happens, he continued, the solicitation has to be canceled, prepared again, and resubmitted.

"It has to be on the street for thirty days, then goes in front of the tech review board," said Tomosieski, "Really a lot of things have to take place."

Worse yet, the project is usually "rescoped or descoped," ultimately meaning fewer products or services for the same cost, a detriment to the taxpayer and, moreover, the warfighter.

To solve this problem, Europe District made headway into paying its Turkish contractors in lira or euro, as opposed to dollars, said Thomas Moore, district chief of resource management.

This decreases the risk for the contractor by creating a stable contract amount, thereby allowing the contractor to plan ahead for expenses. Through this, the theory goes, more competitive bids — that is, less inflated bids — will be submitted.

"We want whatever is more stable for them," explained Moore; "whatever they are buying their materials and labor with."

While paying out projects in the foreign contractor's local currency creates a stable contract amount for contractors, it makes accounting and planning for changes in the exchange rate difficult.

For this reason, Europe District uses what's called a foreign currency fluctuation account, or "flux account," to simplify the math.

The basic purpose of the flux account is to provide a place for money to come in or go out as the exchange rate fluctuates over the course of a contract.

According to Moore, the rate for a flux account is set in the president's budget and locked for each fiscal year. "They can change it," he said, "but I've only seen it changed once. They might change it early in the fiscal year if they were really off."

"It basically freezes the exchange rate for the project," said Daugherty. "If you didn't have that account, as the value of the dollar changes, the value of the contract would go up or down."

When a foreign currency contract is awarded, the dollar value of the contract will change according to exchange rate fluctuations. However, this makes it nearly impossible for the District to budget for the contracts, which can span over several years. The flux account is an account that uses a set rate for budgeting purposes and is essentially a bucket that money flows into or out of to compensate for fluctuation in the dollar value of a foreign currency contract.

In the case of the 515 housing units at Incirlik Air Base, Daugherty recommended that an upcoming contract at Incirlik Air Base in Turkey be paid in New Turkish Lira, the local currency. In an e-mail regarding the contract, Daugherty wrote, "I have asked that USACE look at awarding a best value contract valued in Turkish Lira to limit contractors' risk as well as limiting project risk to continued foreign currency fluctuation."

Unfortunately, the bids were still too high, said Tomosieski. So the District is in the process of rescoping with the customer, and the current plan is to award this as a dollar or euro contract by July 2009.

But while the contract at Incirlik Air Base will no longer be awarded in lira, the District will continue to consider the use of foreign currencies and the flux account to benefit both parties. This flexible contract letting method decreases risk for all those involved and could help to prevent overruns and cancellations of future U.S. Army contracts.

Did you know?

From an average of 9 lira per U.S. dollar in the late 1960s, the Turkish Lira came to trade at approximately 1.65 million lira per U.S. dollar in late 2001, representing an average inflation of about 38 percent per year.

"We want whatever is more stable for them; whatever they are buying their materials and labor with."

–Thomas Moore, Europe District chief of resource management discussing the benefits of letting contracts in local currencies.

Solving problems:

ANOTHER MODIFICATION? DIFFERENT CUSTOMER?

NO PROBLEM

Europe District smoothly hands over a building retrofitted for one customer to another on Stuttgart's Kelley Barracks

Story and photos by Justin Ward

Now that the dust has settled, it's easy to see how the 6.3 million euro ($8.6 million) renovation of Kelley Barracks' building 3308 transformed the pre WWII three-story building into what's being called the "nicest looking building on Kelley Barracks." But getting there wasn't easy.

From the outside, not much has changed to the building, which lay vacant for several months.

"We put in new blast windows, we renovated the roof, and we did some paint and patch work. But that's it," said John Gerlach, Resident Engineer, Stuttgart Area Office.

On the inside, though, it was completely redone, including the installation of the only central air conditioner and elevator on the post and workable attic space on the third floor.

"This facility was gutted from stem to stern," said Gerlach. "Because they are using the upper attic areas as office space, the building had to be rebuilt structurally. It's now completely different than it was. And, in my opinion, it was really wonderfully done."

The building now serves as a central location for U.S. Africa Command's (AFRICOM) Intelligence, Knowledge, and Development directorate.

The original request to renovate the facility came in 2005 when the Washington, D.C.-based Defense Intelligence Agency (DIA) asked for a partial renovation of the building for one of their components. Since then, modifications came continually, including renovating the remaining floors, opening areas for large conference rooms, and changing of the end user from DIA to AFRICOM.

"We have some folks on other barracks here in Stuttgart that are cramped for space," said Jim Vardy, DIA facility operations specialist. "So when an opportunity to move to a building with plenty of space came up, the decision was made to renovate it and move forward. They made another decision as more groups came into that DIA organization to go for the whole building and renovate the whole thing. So the project was really to consolidate people who are here in Germany for DIA and also to move them into newer spaces with some new equipment."

When AFRICOM announced in 2007 its eventual home would be Kelley Barracks, plans changed again for the building.

"We analyzed all the space that was available here on Kelley," said Col. Chad Rotzien, chief, AFRICOM reserve forces branch and facility coordinator for AFRICOM's Intelligence, Knowledge, Development directorate. "All the other buildings

[had] pretty much max utilization. This building, though, it was underutilized compared to the other buildings. So we went to DIA and asked them if we could use the building … as swing space until building 3315 is complete."

The new combatant command, which officially established its operational headquarters on Kelley Barracks in October, already had a contract to retrofit building 3315, but it wouldn't be complete until fall 2009, said Rotzien. And the two floors of building 3306 it was currently using weren't sufficient to handle their requirements.

"We're pretty much sitting on top of each other [in 3306]," said Rotzien. "It's pretty crowded."

After a few appeals and negotiations, DIA agreed to turn over the building to AFRICOM.

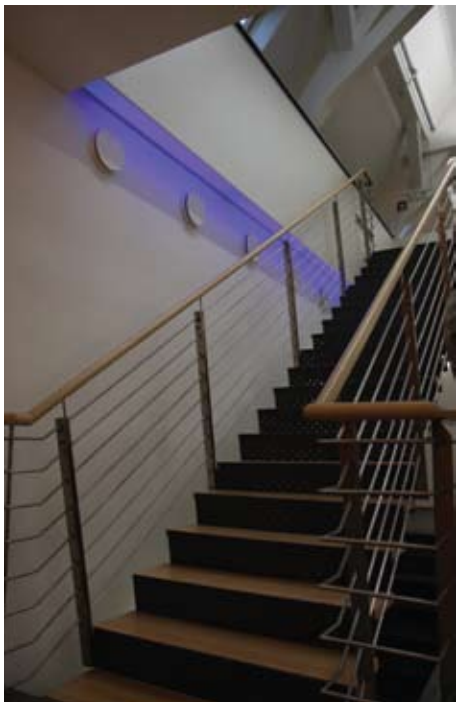
"We're very, very pleased," said Rotzien, "that they would allow us to use this fine facility until our building is complete. I know it probably didn't please a lot of people at DIA, but they've been very helpful and cooperative and we really do appreciate being able to use the facility. … They stepped up and did us a huge favor."

The U.S. Army Corps of Engineers partnered with the Reutlingen Bauamt (state construction office) and the contractors Keller-Eckert Freie Archtekten BDA and Ed. Züblin AG to revamp the building.

> **"Switching customers, modifying the plans — those are things we've done before. But I've never been involved in such a complex process as retrofitting this building. I'm thankful we had a hardworking team."**
>
> **–John Gerlach, Resident Engineer, Stuttgart Resident Office**

The hardest part, said Gerlach, was overseeing the new measures that had to be undertaken to reclassify the building. These included installing security equipment; alarms; multiple computer networks; new doors and locks; new windows; new vents, ducts, and pipes; and soundproofing material for the open bay offices to minimize distractions.

"Switching customers, modifying the plans — those are things we've done before," said Gerlach. "But I've never been involved in such a complex process as retrofitting this building. I'm thankful we had a hardworking team. And I really can't say enough about how great a job the Bauamt did."



Left, an exterior view of Kelley Barracks' Bldg. 3308 shows the new blast-proof windows, roofing, and paint put on by Europe District's contractor as part of the retrofitting package necessary to classify the building as a Sensitive Compartmented Information Facility for the Defense Intelligence Agency and then, later, the U.S. Africa Command. Right, an inside view shows the stairway leading to the newly refurbished third floor, where offices replaced former attic space. The building is the first on the barracks' with central air conditioning and an elevator.

ONE ENVIRONMENTAL SUCCESS AFTER ANOTHER

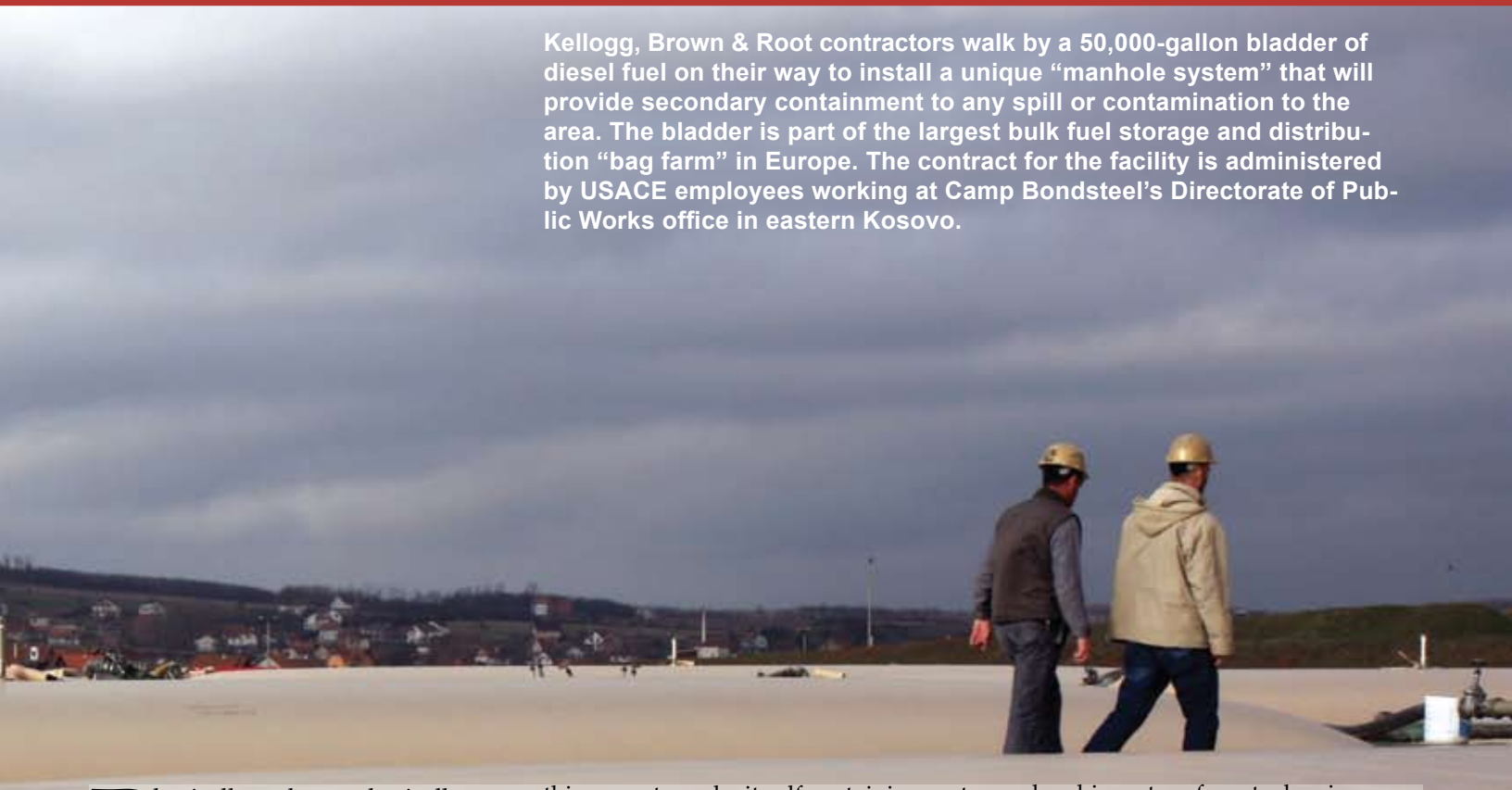
Corps' team mingles old and new technologies to lessen environmental impact at Camp Bondsteel

Story and photos by Justin Ward

Ten years ago, abandoned wheat fields spackled the hills just outside the village of Ferizaj/Urosevac in eastern Kosovo. There in late 1999, the UN sent in NATO peacekeeping forces to establish Camp Bondsteel, their forward expeditionary base for administering that disputed region of former Yugoslavia.

The proposed idea has always been — and still is — to return the expropriated 955 acres on which Camp Bondsteel sits to the nascent Kosovo government when NATO's Kosovo Force (KFOR) is no longer needed. Until then, sound environmental stewardship is needed to limit the adverse ecological impact posed by the nearly 5,000 military and civilian personnel employed there.

It's no easy task. But through the ingenuity of mingling old and new technologies, the U.S. Army Corps of Engineers' Europe District has made it work.



Kellogg, Brown & Root contractors walk by a 50,000-gallon bladder of diesel fuel on their way to install a unique "manhole system" that will provide secondary containment to any spill or contamination to the area. The bladder is part of the largest bulk fuel storage and distribution "bag farm" in Europe. The contract for the facility is administered by USACE employees working at Camp Bondsteel's Directorate of Public Works office in eastern Kosovo.

Physically and metaphorically, Camp Bondsteel rises above the surrounding villages like a city on a hill. It's massive and symbolizes to local Kosovars the ideals of the West.

Like many modern military bases, this "city" — NATO's headquarters for the Kosovo Force's (KFOR's) U.S. Army-led Multinational Task Force East — includes all the requisite conveniences of a modern metropolis, including residential areas, restaurants, commercial vendors, a big-box retailer (AAFES), education centers, religious centers, and perhaps the best hospital in Kosovo.

To serve these activities, the camp requires all the infrastructure modern cities do — roads, power plants, wells and water distribution lines, gas, refuse collection, sewage sludge processing, etc.

Relying on local utilities to provide, maintain, and/or process these products and services has always been untenable, said Francis Furlong, the Corps' director of public works in Kosovo.

"In terms of waste, water and energy, we do anything and everything on this camp to make it self-sustaining, not only because it ends up better serving the needs of our customer, but because we should," said Furlong.

Dealing with waste

Bill Loman, the Corps' environmental officer on the camp from December 2007 to January 2009, said his favorite environmental success story at Camp Bondsteel is the compost yard.

The millennia-old technique of composting was kicked up a few notches in 2005 when Loman's predecessor negotiated with the U.S. Army Europe, Kellogg Brown & Root, and the private German firm COMP-ANY GmbH to set up a "mobile aerated static heap" composting system at Camp Bondsteel. The new system, he said, reduces manpower, accelerates the natural composting process, limits odors, and reduces the effect of extreme weather.

"What's surprising is how high-tech this is," said Loman, who oversees this performance work area. "And it's also simple."

Previously, solid waste collected from the camp was incinerated on the site using one gallon of diesel fuel for each cubic meter of waste, leaving residual waste and ash to be transported to an off-site landfill. Sewage sludge and food waste also had to be transported off site for disposal.

Today, after a six-week curing process combining chipped wood, paper, cardboard, yard trimmings, and all the sewage sludge and food waste generated on the camp, the base produces cheap, clean mulch that is ready to be used as a base for new landscaping or to aid with erosion control.

"I can't say enough about how much better this system is for the environment than the previous one," said Loman. "That's probably why it's my favorite. … I hope we're starting a waste management trend."

Dealing with water

Another "wasteful" endeavor for Loman was solving the camp's nagging water leakage problem.

For months, personnel on the camp were complaining of low water pressure. Experts examining the "lost water" phenomenon thought the camp's aquifer was being depleted beyond its means, signaling long-term conse-

"We are better able to leave this camp – whether intact or dismantled – in the hands of the Kosovars thanks to the environmental stewardship we've been able to provide to the task force."
–Francis Furlong, Director of Public Works (USACE), Camp Bondsteel, Kosovo

quences for the camp's mission.

We were losing over 3,600 gallons of water an hour, said Loman, enough to fill an Olympic-sized swimming pool every week.

"The water just went away into the environment," said Furlong. "And until Bill Loman stepped in to deal with the issue, it seemed nothing was going to happen."

The perpetrator turned out to be a variety of pipe breaks and connection failures throughout the water main supply network. And by systematically isolating sections of the network and fixing underground leaks as they were discovered, Loman was able to reduce the loss to only 700 gallons per hour, Furlong said.

"His unflagging insistence that the water distribution network was the problem infuriated many, but eventually forced all parties to deal with the problem," Furlong said of Loman. "He has successively and successfully eliminated that leakage problem and very shortly will be reducing it even further, down to next to nothing."

A second water conservation issue Loman has tackled was the laundry water recycling center, which is expected to be complete in the spring.

"There are 3,000 people at Camp Bondsteel at any given time," said Loman. "And everybody's laundry comes here. That's a lot of water used to clean those clothes."

The system to be constructed would take the collected wastewater used after each laundry cycle and pass it through a series of nanofiltration membrane pods that remove up to 99 percent of dissolved solids. The water is then moved to a processed water tank where potable make-up water is added for the next laundry cycle, said Loman.

"This is leading edge technology in water treatment," Loman said. "We're expecting about 80 percent recovery on a daily basis. That's a lot of saved water, energy, and money."

Dealing with energy

Reliance on the Kosovo Electric Cooperative would even now tax the still-fledgling public utility beyond its capacity, said Furlong. Thankfully, the camp has fashioned a way to be self-reliant, depending only on benzene-fired heavy-duty diesel load share generators for electric power.

To power those generators, Camp Bondsteel houses Europe's largest bulk fuel storage and distribution "bag farm," where 750,000 gallons of aviation fuel and diesel fuel are stored in 50,000-gallon bladders. And maintaining that has been the Corps' mission.

"It's a permanently temporary solution," quipped Loman of the farm, which powers generators that supply electricity to the camp. "It's actually pretty state of the art, and not just for this area of the world."

The bags are all separated and sur-

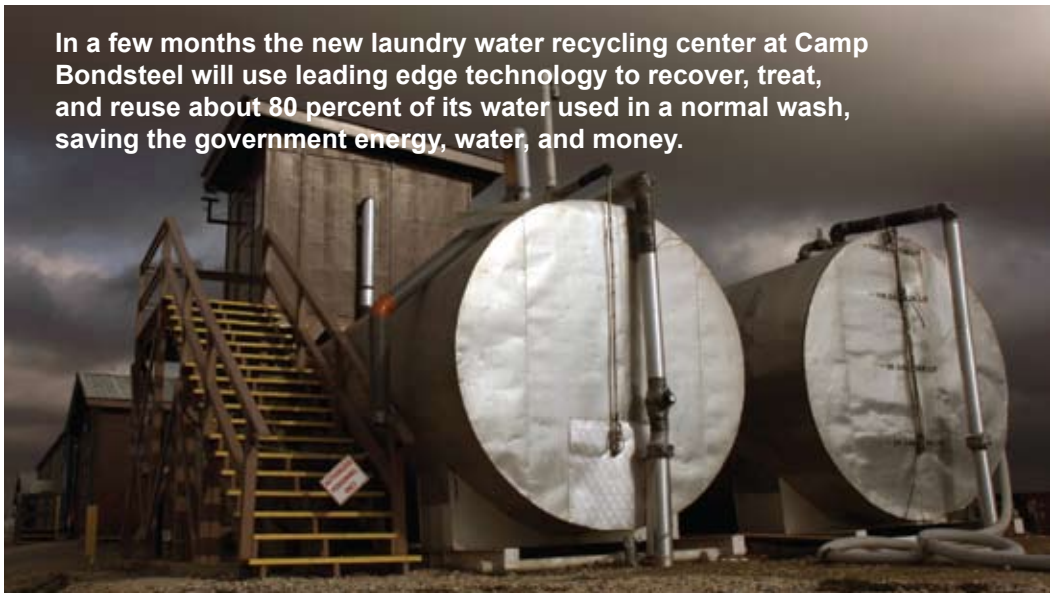
rounded by plastic-lined clay berms, which form pits to contain the area in case of a spill, Loman said.

When the bag farm underwent a long overdue rehabilitation recently, engineers recognized a design flaw that could have impeded the drainage system and resulted in a hazardous spill.

"It would have compromised secondary containment," said Loman. "So we had to think of a way to contain the drainage system in case of contamination."

Ultimately, engineers decided on a manhole system that called for a 12-foot long six-inch pipe to pass through each berm. These pipes, each with its own shut off valve, would drain the potentially contaminated runoff into a separate sump area. From there, it would run through an oil-water separator where the water runoff would be cleared to enter the environment.

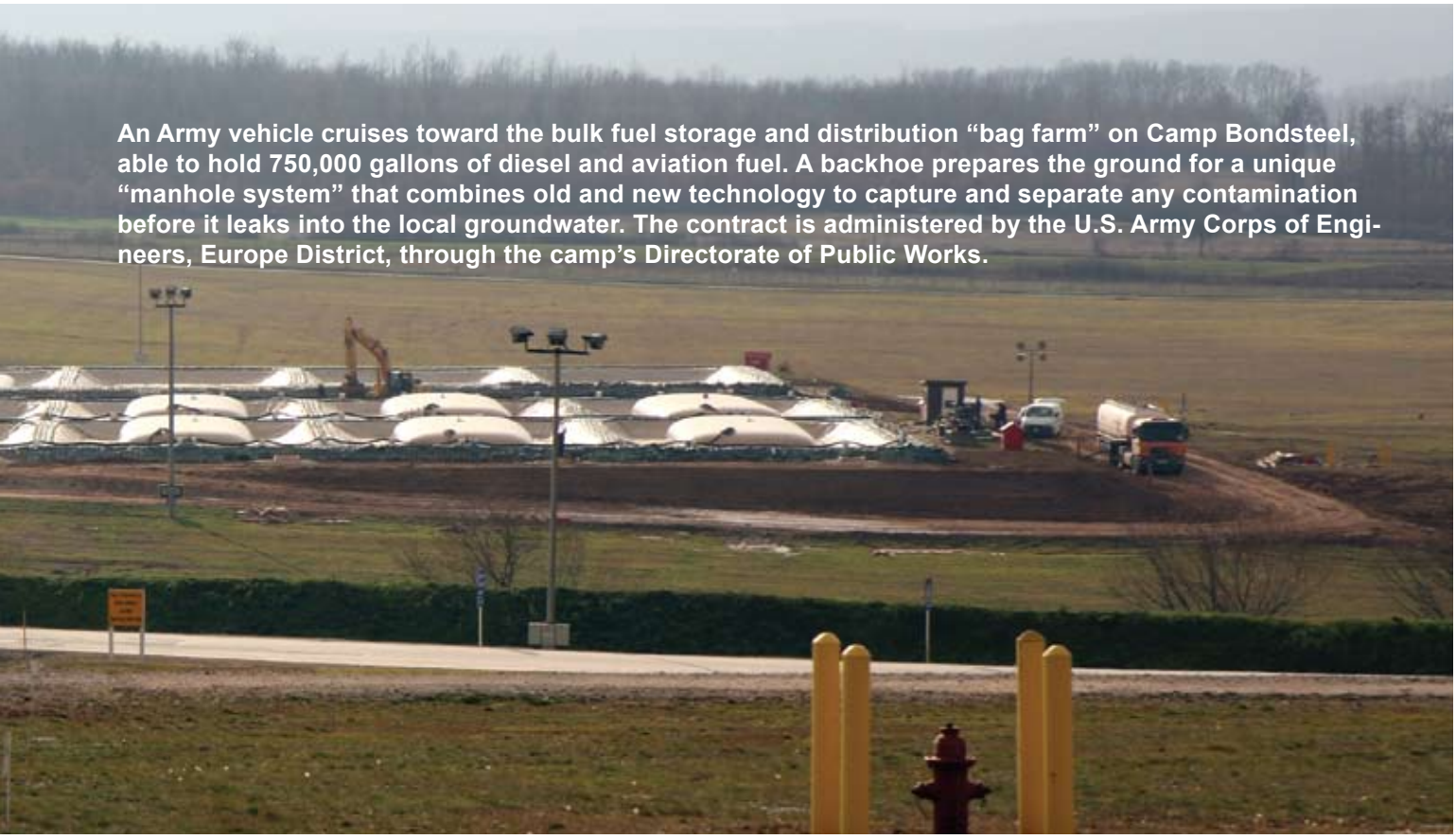
"This system allows us to be environmentally friendly," said Sgt. 1st Class Mark Maness, Class III (Bulk) noncommissioned officer in charge, Camp Bondsteel. "Putting in the manholes allows us to release the water in the pits evenly to the oil-water separator and not contaminate the other pits. It is a lot better now that we can contain the contamination and not allow it to run into the groundwater and possible well contamination in the surrounding towns."



In a few months the new laundry water recycling center at Camp Bondsteel will use leading edge technology to recover, treat, and reuse about 80 percent of its water used in a normal wash, saving the government energy, water, and money.

Taken together, although these waste and energy programs primarily serve the task force by saving water, money, and energy, they also allow decrease the camp's environmental impact on the region.

"We are better able to leave this camp — whether intact or dismantled – in the hands of the Kosovars thanks to the environmental stewardship we've been able to provide to the task force," said Furlong. "And really, one of the main players in making that happen is Bill Loman, who is an absolute bulldog when it comes to environmental management."



An Army vehicle cruises toward the bulk fuel storage and distribution "bag farm" on Camp Bondsteel, able to hold 750,000 gallons of diesel and aviation fuel. A backhoe prepares the ground for a unique "manhole system" that combines old and new technology to capture and separate any contamination before it leaks into the local groundwater. The contract is administered by the U.S. Army Corps of Engineers, Europe District, through the camp's Directorate of Public Works.

Digging oases in the Sahara

American engineers to oversee the construction and renovation of AFRICOM-funded humanitarian assistance "oases" in the southern Sahara desert

Story by Justin Ward, Graphics by Thomas Rodehaver

Army engineers recently agreed to oversee the construction and renovation of 44 U.S. Africa Command-funded Humanitarian Assistance (HA) projects in the Sahara.

These projects — mostly in the form of wells — focus on providing basic facilities to impoverished communities in remote, isolated areas of the Sahara, said Tim Huwe, Europe District program manager for the U.S. Africa Command (AFRICOM).

Split principally between Niger and Mali, these projects total over $1.7 million and include 32 new or refurbished wells, seven new schools or school additions, two six-room health clinics, and two small grain banks.

"These projects allow us to focus on humanitarian intervention in critical areas such as food insecurity, malnutrition, and infant mortality," said Wil Pognon, acting defense attaché, U.S. Embassy Niamey, Niger. "We focus on these critical areas specifically in an effort to continue the embassy's investment in people and promotion of economic growth and prosperity."

The projects will not only encourage good relations with the national and local government, said Pognon, but also improve the quality of life in remote areas of the country that usually don't benefit from Western influence.

AFRICOM's humanitarian assistance branch, under Dr. Diana Putman, has worked hard to prioritize and get these critical HA projects funded, said Huwe.

"[Our] role is just to execute contracts to get these projects constructed," he said. "Our hope is to support AFRICOM's Theater Security Objectives and gain experience working on the continent so we are more valuable in the future."

Wells

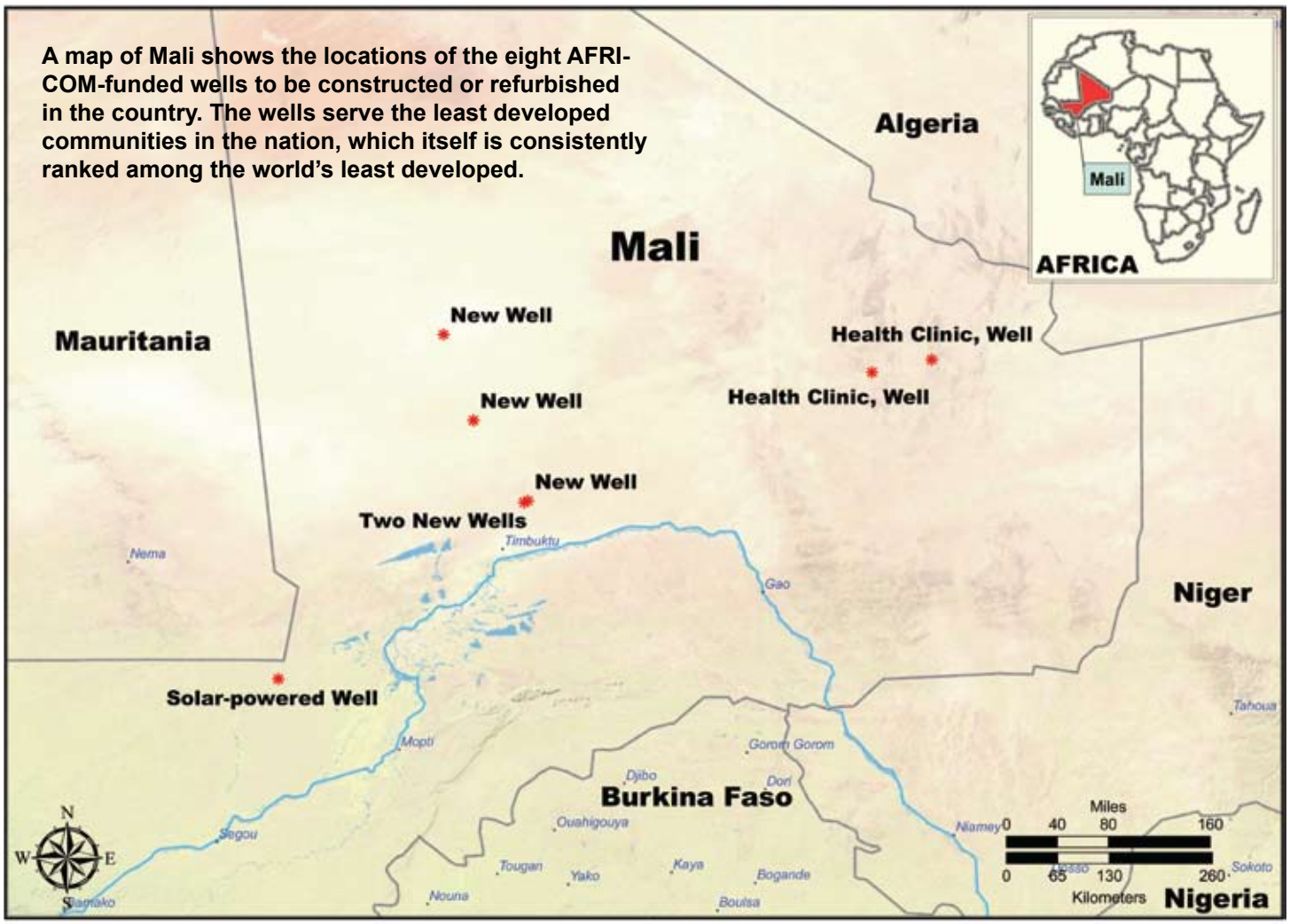
The largest share of wells to be worked on is a series of 12 existing wells in danger of collapsing in the Sahel region of Niger. These projects, valued at about $100,000, would benefit local populations of nomadic Tuareg and Wodaabe herders, said Darrell Cullins, Europe District's project manager for many projects in Africa.

> *"These projects allow us to focus on humanitarian intervention in critical areas such as food insecurity, malnutrition, and infant mortality."*
>
> -Wil Pognon, acting defense attaché, U.S. embassy Niamey

In another isolated area of Niger, five other wells in danger of collapsing will be renovated to a depth of 120 meters, Cullins added, costing roughly $300,000. Four new wells priced at about $55,000 each will be constructed throughout other areas of Niger. All these projects are expected to be completed by September 2009.

"Niger is a poor country and every village has a need, but not every need is met by the government or [nongovernmental organization]," said Pognon. "HA projects provide a viable alternative (and sometimes supplement), particularly in villages that are located in remote areas of the country. The end-users greatly appreciate the fact that their needs were not overlooked and graciously thank the U.S. with every means at their disposal for improving their quality of life."

In Mali, eight wells will be worked on throughout the country, five of which costing $11,400 each will be renovations



A map of Mali shows the locations of the eight AFRICOM-funded wells to be constructed or refurbished in the country. The wells serve the least developed communities in the nation, which itself is consistently ranked among the world's least developed.

Workers construct a new well in the Tahoua region of Niger, where Army engineers are overseeing the construction of four new wells, six refurbished wells, two schools, and two grain banks as part of the the U.S. Africa Command-funded humanitarian assistance program split principally between Niger and Mali.

in the Timbuktu region that will include simple pulley systems to bring water up from the wells and watering places for animals. The others — two of which will be part of new health clinics — will be solar-powered water pump systems, including new 1,000-gallon water tanks, new water troughs, and new piping.

"Mali is 168/179 on the Human Development Index," said Richard "Kane" Mansir, the U.S. Embassy Bamako's HA team leader, citing the UN's 2008 report. "Therefore, everyone in Mali needs something." And this HA program, together with public diplomacy and other civil-military engagement efforts, he continued, helps to serve the needs of the Malian people in areas which most need assistance.

Schools

Roughly $725,000 will be put into constructing seven new schools, classrooms, and classroom additions in Niger and Mali during the next year, said Cullins. The lion's share will go toward small communities throughout Niger where three new 690-square-foot, one-room schools costing about $124,000 each will be constructed. Although these schools — complete with a teacher lounge, dormitory, and separate latrines — will be rudimentary buildings made from cast-in-place concrete and cement block walls, they will do a lot for those vulnerable communities, said Huwe.

"Satisfaction comes in knowing that you are supporting projects that benefit peoples in desperate need of water and medical assistance," said Huwe.

The four other schools throughout Niger and Mali — two in each country — will average about $88,000 each and are estimated to be complete by September 2009.

> *"Mali is 168/179 on the Human Development Index. Therefore, everyone in Mali needs something."*
>
> - Richard "Kane" Mansir, HA team leader, U.S. Embassy Bamako

"We maintain a successful collaborative relationship with AFRICOM and USACE," said Pognon. "All projects are carefully coordinated among all three entities to ensure smooth and effective implementation. I have found that individuals involved in these projects are energetic, dedicated, supportive, and open to new ideas."

Other projects

Two grain banks costing about $121,000 each will be constructed in Niger.

About $350,000 will be put into two new, six-room health clinics in Mali, Cullins said, which will include new bathroom facilities and new wells.

"[These] projects are chosen through by a process," said Mansir. "Once we travel to an area that we are interested in, we recommend a project (typically well, school, or health clinic …). [These] are important to the U.S. Embassy and the DoD because they allow interagency cooperation. …"

Other District projects outside the Sahara include three concept designs for wells in Zambia, two school renovations in Mozambique, and an exercise reception facility recently completed in Mali (See inset, page 15).

For future work on the continent, Europe District recently awarded a Multiple Award Task Order Contract (MATOC) contract to allow for the provision of design, real property repair and maintenance, environmental work, incidental services, force protection work, and construction services throughout Africa until Sept. 2011 or until $14.8 million has been used. The MATOC work will primarily be located in Niger, Chad, Mali, Senegal, Mauritania, Morocco, Tunisia, Gabon, Ghana, Nigeria, and Liberia, with work also supported in the Horn of Africa at the request of the U.S. Navy.

Despite challenges, USACE finishes exercise facility in Mali on time

Story by Rebecca Lippman

To assist the Special Operations Command and the U.S. Africa Command prepare West African nations to respond to "transnational" threats, the Corps' Europe District recently rushed to hand over a $1.15 million operations facility in Bamako, Mali, used during a two-week joint military exercise dubbed FLINTLOCK.

The most difficult part of the project — a simple, 3,200-square-foot structure to house communications equipment and act as a briefing area — was the timing, said Brandon Stone, project engineer who deployed to Mali in late October to execute the assignment.

"The project was far behind schedule and I was told it would be nearly impossible to meet the turnover date of 1 Nov.," Stone said. The exercise was to kick off at the site Nov. 3.

The challenge was to connect the new facility's bathrooms (or "ablution units") to the local utility lines, Stone said.

"There just wasn't enough time to connect it traditionally," he added. "So a plan was developed to install temporary holding tanks and use a pump truck to remove the waste water as required."

Executing the plan required long hours and renting excavation equipment uncommon in that part of the world, Stone said. But despite the challenges, he was able to ensure the facility was finished one day early.

After a walkthrough on Oct. 30, said Stone, "the keys and O&M manuals were presented to the user on Oct. 31."

At FLINTLOCK's opening ceremony, the U.S. Ambassador to Mali, Gillian Milovanovic, said he is proud of the U.S. military's commitment to the region.

"We look forward to continuing our close cooperation with all the countries represented here today," he said. "The multinational composition of today's audience clearly illustrates our shared commitment to the pursuit of successful military and civilian cooperation in an environment of mutual respect and confidence among partners. Thank you all for your engagement in FLINTLOCK, and for all that you are doing every day in your respective nations to keep your country, the region, and our world a safer place."


Brandon Stone

Left: Local contractors prepare an area for waste water holding tanks in Bamako, Mali, just days before the opening ceremony for FLINTLOCK, a military exercise designed to build relationships and capacity among security forces throughout the Trans-Saharan region of Africa.

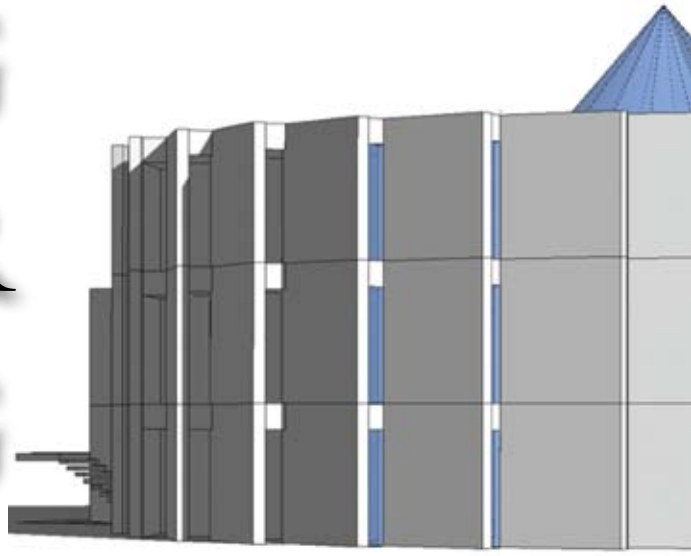
Below: African and U.S. forces stand at attention during FLINTLOCK's opening ceremonies Nov. 3.

Below left: Local workers fill in the area around the new holding tanks, put in place just days before FLINTLOCK's opening ceremony. The new facilities may also support future operations at the site.


Brandon Stone


Tech. Sgt. Victoria Meyer, FLINTLOCK Public Affairs

Mastering Master Planning



Story by Rebecca Lippman, Europe District Public Affairs

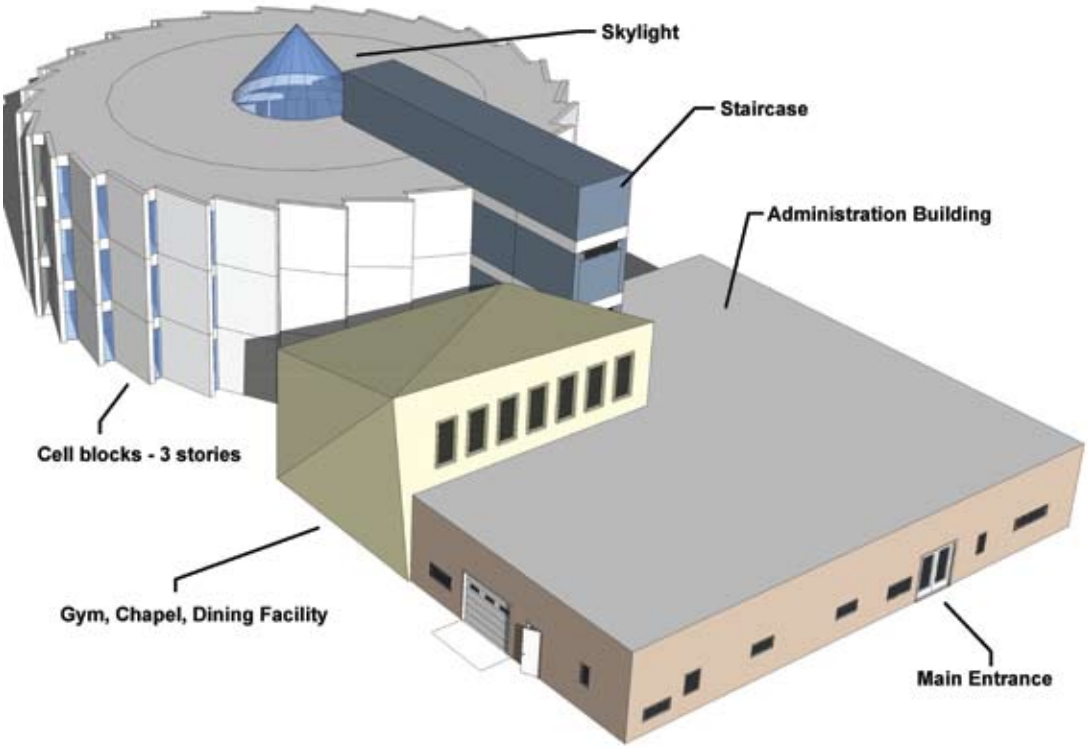
In 2007 it was Babenhausen, Friedberg, and Giessen. In 2008 it was Würzburg, Hanau, and Darmstadt. And soon, Mannheim, Pirmasens, and other posts throughout Germany may be closing down, triggering the enduring U.S. military communities in the country to bulk up in preparation for the hundreds of restationed Soldiers and Civilians.

Consolidating installations can save money and result in higher efficiencies – but only if done correctly.

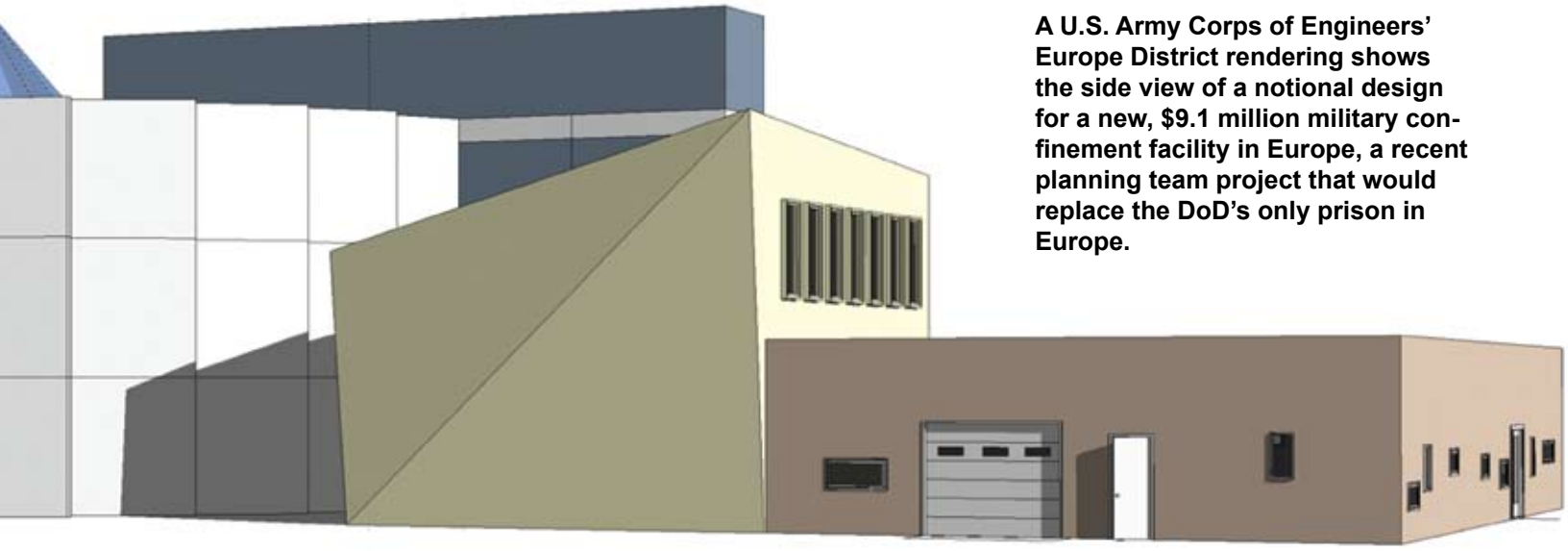
To the U.S. Army Corps of Engineers Europe District planning section, that means lots of collaborative brainstorming sessions called charrettes. Charrettes are intense multi-day meetings where invested parties draft solutions to design or planning challenges.

"Army transformation, the spate of base closures, and the fact that many military facilities in Germany are old has meant plenty of charrettes for us recently," said Eric Garcia, architect and technical team leader in the district's planning section. "We're on the road all the time."

The charrettes have ranged from



The notional design for a new military confinement facility – one of the most unusual planning requests the U.S. Army Corps of Engineers' planning team has received recently – would include a gym, chapel, dining room, and 80 cells for inmates. The facility would replace the DoD's current prison, built in 1963 and located in Coleman Barracks, an Army Airfield about one mile north of the city of Mannheim.



A U.S. Army Corps of Engineers' Europe District rendering shows the side view of a notional design for a new, $9.1 million military confinement facility in Europe, a recent planning team project that would replace the DoD's only prison in Europe.

planning or designing new or renovated buildings, landscaping efforts, transportation corridors, and even entire military installations.

But one recent session was a first for the District's team of designers and architects. The team was asked to plan a $9.1 million military prison.

Hard time in Mannheim

The DoD's only prison in Europe – officially known as the U.S. Army Military Confinement Facility-Europe, or MCF – is located in Coleman Barracks, an Army airfield about one mile north of the city of Mannheim.

Although originally built in 1963 to house 236 inmates, the MCF today houses only a few dozen detainees, varying in rank and crime and all awaiting trial or serving sentences of less than one year.

With Mannheim's projected closure in the next few years, the planning team, led by Paul Ramey, was asked to plan a new facility.

"The architecture of a prison is a very interesting prospect," Ramey said. "Generally we try to build our buildings to ... invite people in; but in this case, we want to keep those people in."

When designing a prison, there are some important concepts to keep in mind, he said. Sprinkler systems can't hang from the ceiling, as in most buildings. And security and monitoring systems have to be sensitive, layered, and durable.

"We had to approach the design from different angles," said Marcus Ballnath, a district architect, who said he had a tour of the current facility to learn about the operations. "The design we finally came up with was a combined effort by the user and our design team. … The round shape of the cell block was actually brought up by a user and derives from the desire to have direct sight lines into every space from a central control point."

"Generally we try to build our buildings to ... invite people in; but in this case, we want to keep those people in."

-Paul Ramey, Europe District planning chief

An important precaution, said Ramey, was that the guards must be able to shut anything down at any

Europe District's planning team led an effort in early December to plan a new vehicle maintenance center for the U.S. Army Garrison Ansbach. The effects of Army transformation, the spate of base closures in Germany, and the age of military facilities has meant plenty of work for the district's planning section recently.

time. Prisoners who want to shower or even flush a toilet, he said, must call the guard on duty who controls the water usage. "All those things need to be very carefully designed so that inmates can't hurt themselves or disrupt the facility," he said.

Other design considerations include common areas for inmates, lockers for personal possessions, a visitor's and in-processing section, and two layers of concertina-wire-topped fencing encircling the facility.

"You don't get to design a new prison every day," said Ramey.

Elsewhere in Germany

In Wiesbaden, two recent charrettes were held for operational and community support facilities for the relocation of the 7th Army from Heidelberg, 5th Signal Command from Mannheim, and the 66th Military Intelligence Brigade from Darmstadt.

One charrette included the design of 7th Army's new Command and Control facility. The other was to plan a townhouse community of 326 new dwelling units that will flank the south side of the Wiesbaden Army Airfield, where farmers' fields currently lie, estimated at $133 million.

Projects for facilities like these call for many pre-construction plans, including the rerouting of traffic for truck access, storage, parking, and pedestrian routes; the surveying of groundwater, soil, and native species; the clearing of unexploded ordnance; and a complete upgrade of the water, sewer, electrical, heating, and telecommunications infrastructure, including running new lines to the proposed construction sites.

In the Air Force-heavy German states of Rheinland-Pfalz and Nordrhein-Westfalen, the largest charrettes were for two U.S. high schools — one for the Air Force and one for the Army.

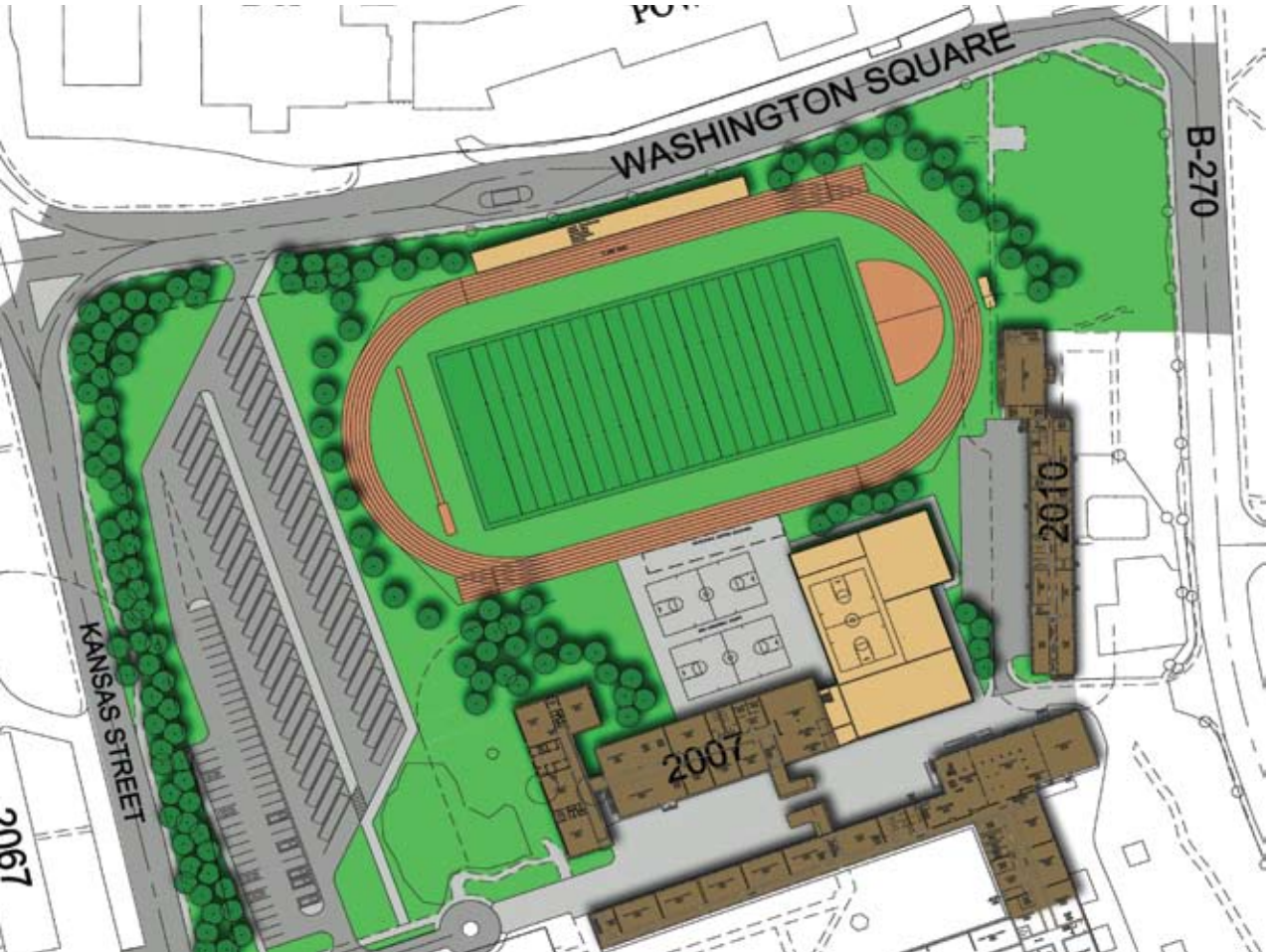
At Spangdahlem Air Base the new facility is expected to replace the current high school located 10 miles away down the winding road to the Bitburg Annex. And at the U.S. Army Garrison Kaiserslautern, plans are in the works for an elementary and middle school, which includes a new stadium, as well as a $70 million high school that would replace the original one, built in the 1950s.

"Another thing the Army's trying to do is make their facilities as nice as the Air Force's," explained Ramey. "There's always been this rivalry in the Kaiserslautern Area with Ramstein always having all the nice stuff, and then the Army side having kind of second best."

Other recent charrettes worked plans for a fitness center and a vehicle maintenance facility in Ansbach valued at $16.5 million each, three barracks in Vilseck, Grafenwoehr, and Kaiserslautern ranging from $17 million to $33 million each, and a relocation of the American Forced Network-Europe headquarters, currently located in Mannheim.

Did you know?

The term charrette, which means "cart" in French, purportedly comes from 19th Century students who would work on their design presentations for Paris's School of Fine Arts literally on their way to class — while riding in the cart ("*en charrette*.")



An overhead rendering shows the design for several additions to the Kaiserslautern school complex, including a new joint Elementary and Middle school, a multi-purpose room, a sports complex, and a new bus parking area. Located on the Vogelweh Military Complex, the campus would also call for a new $70 million high school to be placed nearby.

Mailing Holiday Cheer

The highlight of Crystal Peterson's day is at 6 p.m., when she gets to talk to her deployed husband for about an hour. Then it's back to taking care of her two small children — one only a few month's old — and getting ready for another full day's work.

The story is shared by many spouses of Corps of Engineers deployees, especially in Europe with the recent departure of the eight-member FEST-A (Forward Engineering Support Team – Augmentee) team to Afghanistan to conduct installation-level master planning and facilities design expertise throughout the country.

And because the holidays were coming up, Peterson wanted to do something special for her husband, Sgt. Gabriel Peterson, and the other members of the FEST-A team — something like sending them holiday care packages.

"With the team away from home and family during these very special holidays, there's nothing like getting mail filled with gifts and love that warm their hearts and puts smiles on their faces," Peterson said.

So, because the Europe District doesn't have an established Family Readiness Group — a command-sponsored support organization for deployees' families — Peterson thought she'd take on the task herself and collect donations to send to each of the District's deployed personnel.

"I got the beef jerky from my sister in the States because it's a lot cheaper at Wal-Mart," she said.

Add to that USO-furnished items like trail mix, calling cards, and hand wipes, as well as employee-donated items and personalized holiday greeting cards and it starts to add up, she said.

"This is the second shipment," she said, pointing to the tower of boxes taller than she was.

The Europe District FEST-A team joined with USACE members from Savannah District and the North Atlantic Division in November. They are expected back in February.

Crystal Peterson, engineering management assistant, stands next to a tower of holiday care packages she put together for members of the District's FEST-A team, which includes her husband, Sgt. Gabriel Peterson, deployed to Afghanistan.

Two District employees get married in Israel

Not many love stories start off on construction sites. But that's where two Europe District employees living and working in Israel fell in love a few years ago, by the barren backdrop of backhoes in the Israeli desert.

"We worked on the same project together — SOOFA 4," said Smadar Zvuloni, an Israeli office engineer about how she met her husband, Eyal Mendelovich, a civil engineer at the southern area office "And we just started seeing each other at meetings and construction sites."

The SOOFA 4 project involves the construction and renovation of various Israeli Air Force (IAF) projects at various bases throughout the country. Highly technical in nature, this $24 million project to be turned over to the IAF this spring required many meetings, allowing the couple plenty of opportunities to see each other.

And on December 11, they tied the knot. Or crushed the glass, as they do here.

"It was a beautiful wedding outside Jerusalem," said Zvuloni, who moved to Israel 11 years ago from Hillside, N.J. "It took place at Kibbutz Hulda. Very beautiful."

Mendelovich described it as a "big party with 350 people. "[The] dance floors was full all the time."

The couple didn't keep their office romance a secret, said Zvuloni.

"Everybody knew. The whole office knew," she said.

For their honeymoon, they are planning on flying to Puerto Rico for a week. Then they're off to Smadar's homeland. "We'll go to America for a bit and see New York and Las Vegas. Eyal has never been there and I want to show him the country."

Europe District employees Smadar Zvuloni and Eyal Mendelovich, who met and fell in love while working on construction projects in Israel, pose outside Jerusalem Dec. 11. just before their wedding. Zvuloni designed her own wedding dress.

Mediterranean Marriage

Two U.S. Army Corps of Engineers employees working in Israel, Smadar Zvuloni and Eyal Mendelovich, were married Dec. 11 after falling in love on a construction site. Their wedding took place at Kibbutz Hulda, outside Jerusalem. See story on page 19.