

Engineering in Europe

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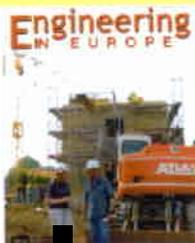
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On the Cover

Europe District Project Engineer Shaleigh Daniel (left) talks with Andreas Kloeckner of Peter Gross GmbH outside the Wiesbaden Army Air Field's \$5.4 million expansion to the medical and dental clinic.



TEAM OF EXCELLENCE 2002



Engineer of the Year

Johann "Hans" Hirschman

earns the honors for his work with the Hohenfels Resident Office. He is the project engineer for the \$13-million Hohenfels High School, a project with a minimal cost growth of 0.1 percent, and one which will be delivered on time. He has

also served as a consistent force on the Hohenfels Team. Hirschmann experienced a complete turnover of personnel over the past two years, and has served at times as the resident engineer, despite his full work load. He is an advo-

cate for U.S. interests when interacting with his German government partners, and his successes are attributed to his flexibility and positive partnering skills.

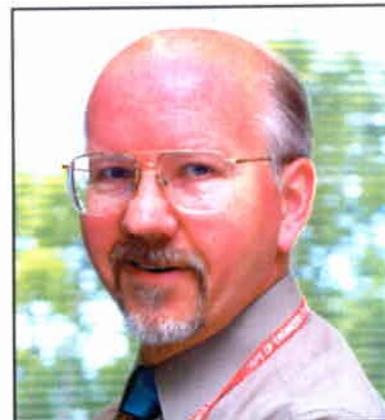
Supervisor of the Year

Loran Baxter

When Baxter arrived in August 2001 his branch had not seen a permanent chief for more than 15 months. The Environmental Team suffered from turnover and employees were tired with low morale. Baxter formulated an organization plan designed to take care of

both customers and employees with "customer focused teams." His approach provided dedicated teams supporting each Area Support Group and the Balkans. This enabled staff to support the customers and to improve continuity during a high staff turnover. Baxter's

initiative created an environment for developing mentors and the changes affected customers positively. By personally leading team interviews of all personnel hired, he has ensured his team contains diverse talents, posturing his team for success.



Debbi Schamp

is the Professional Employee of the Year. She is a financial analyst for the Resource Management Office, and is recognized for her energy, job knowledge, loyalty, and quality customer service. She leads five employees in the Employee Support Office, where they perform payroll functions and implement the new employee program. They collectively find solutions to payroll, leave, and overseas allowance challenges, and make new arrivals feel at home.



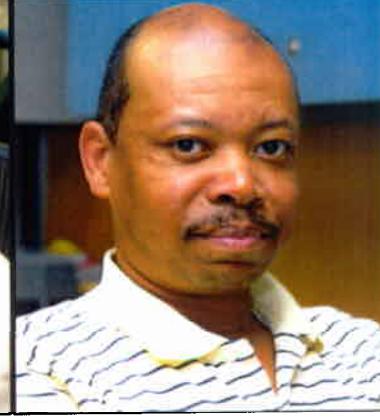
Christy Smith

is the Technical/Program Specialist of the Year. As a management assistant for Information Management, she coordinates print job contracts, conducts budget management, and is the District's CEFMS security officer. She is also the Forms and Publications Officer. Her dedication to her job and her willingness to take on extra duties has continued to please customers. For her expertise and positive attitude, Smith is an all round "go to" person.



Bridget Brackett

is the Secretarial Employee of the Year. As a management assistant for the Construction Team, she provides direct support to 11 employees and indirect support for 190 in area offices. Her proficiency in MODERN and CEFMS has increased the productivity for both the Construction Team and the Engineering and Construction Division. She willingly shares her experience with others and her personal warmth, humor and professionalism keep people returning for her guidance.



Warren Cheek

is the Black Engineer of the Year. As key architectural leader on the Germany-wide Barracks Renovation Team, he leads multi-disciplinary teams to exceptional success in USAREUR's most visible program. He balances his professional life with dedicated attention to his wife, teenage children, and leadership in children's sports and his Church congregation. He has been a key player with the Engineering Team since January 2001.

Fill 'er up in Stuttgart



Story by Brian H. Temple

Gassing up government and tactical vehicles in Stuttgart is now easier since the April 16 opening of a \$475,000 gas station on Panzer Kaserne.

With four new nozzles chugging out almost twice the gas of the previous station, troops and government employees can now fill up and be on their way sooner, said Karl-Heinz Mueller, Logistics Management Specialist of the 6th Area Support Group's Directorate of Logistics (DOL). "We have high-speed pumps ... so we just push the button and that increases the capability to 75 liters, instead of 45 liters per minute," he said.

The station, collocated with the 95th Military Police Battalion, 554th Military Police Company's motor pool, has two 50,000-liter underground tanks, replacing two 10,000-liter tanks. The larger tanks are now refilled monthly, versus weekly.

The larger tanks would have also meant fewer trips to manually check the tank's gas levels with a dipstick, except that a new automated fuel system has dispensed with such checks altogether, Mueller added. The "Fuel Master" automated system measures how much gas is pumped and provides daily reports to help personnel keep track of exact usage.

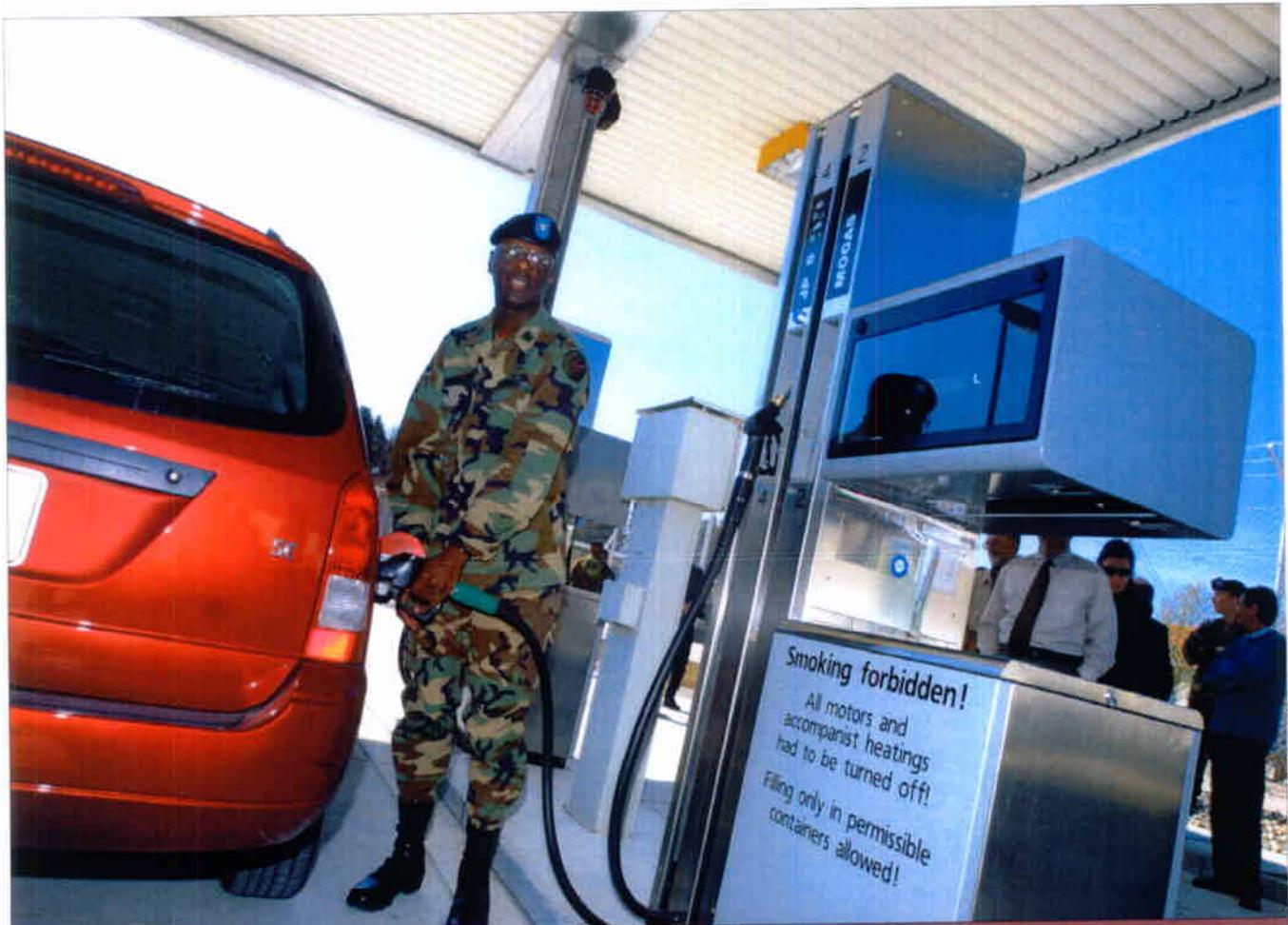


Photo by Brian H. Temple

Col. Larry Stubblefield, Commander, 6th Area Support Group, gasses up the first vehicle at Panzer Kaserne's new gas station in Stuttgart, Germany, April 16.



Photo by August "Augie" Carrillo

Contract workers lower a 50,000 liter gas tank into place on Panzer Kaserne in Stuttgart. The \$475,000 transportation motor pool station construction was managed by the U.S. Army Corps of Engineers, Europe District. The station opened April 16.

Saving both time and money are important to the ASG, Mueller said, and he thanked the project delivery team for completing the gas station several weeks early.

"On a project like this everybody needs to work together as a team and that was done here. ... Sometimes the teamwork is not there," he said.

One U.S. Army Corps of Engineers Europe District project engineer said the people involved kept the project moving forward even while facing construction challenges.

When the site was excavated to place the 50,000 liter tanks underground, contractor *Staatliches Hochbauamt Reutlingen* uncovered a problem, said project engineer August "Augie" Carrillo. "When we dug up the site we found ... the [tanks] were going to run into the

steam lines for the centralized heat plant so we had to move those. We had to put a little bend in 'em ... jog 'em out a few feet." When they did so, workers discovered the water lines were at a different elevation than plans indicated as well, he said. The amount of redirection to the steam lines was increased, and the water

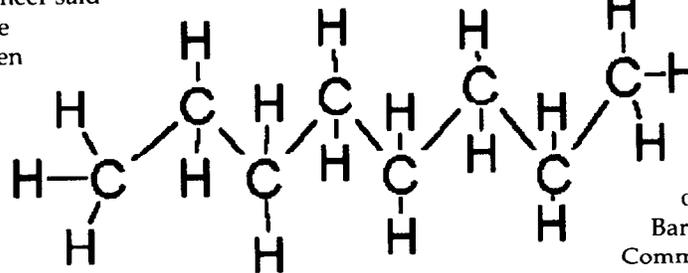
not be pleased. "Steam not being on - not so bad, water not being on - bad," he said. "After much begging and pleading, I was forgiven for having turned the water off for longer than I promised. It worked out."

Working things out is what enabled the project team to deliver the station to the customer early.

Carrillo said the contractor was "conscientious" and did his best to minimize disruptions, which resulted in a good project. And, as the 6th ASG looks forward to consolidating more facilities on Panzer Kaserne from Patch Barracks, Col. Larry Stubblefield, Commander of the 6th ASG, said the Corps of Engineers would be there to help them do so.

"Patch is very crowded, to put it in a nutshell," Stubblefield said. "We have a long range community plan to take things off of Patch and put them over here, and this is just the beginning step. All of the 6th ASG assets such as the in-processing, the central issue facility, the housing office ... are all going to be moved over here to Panzer."

"The Corps of Engineers and the 6th ASG - we're partners. We made an area in our DPW office for the Corps of Engineers. We put it right there with the DPW because our partnership with the Corps of Engineers is just that important."



Octane Molecular Model

lines, originally expected not to be a problem, also had to be rerouted.

Carrillo needed to cut off steam and water for several days to redirect the pipes, and although the steam outage was planned, the water outage was an unforeseen requirement. He knew employees on post would



Herr Jochen Schrempf, Herr Eugen Kastner, Herr Karl Anzenhofer, August "Augie" Carrillo, Dobrita Nezer, Steven Baker, Karl-Heinz Mueller, Robert Gromer.

Corps in the caucasus

RUSSIA



ABKHAZIA

GEORGIA

AJARIA

TURKEY

ARMENIA

AZERBAIJAN

Courtesy of The General Libraries, The University of Texas at Austin
Kagizman



Tbilisi Team's RED BRIDGE New Home for Border Guard

Story and photos by Grant Sattler

The recent opening of the Red Bridge Border Station near the Georgian and Azerbaijan border in the strategically located south Caucasus region was a milestone for the U.S. Bureau of Customs and Border Protection program assisting the Georgian Border Guard and Customs departments. Both departments started from scratch when Russian troops left after the Republic of Georgia regained its independence in 1991.

The \$4-million border station construction project, managed by Europe District's International Engineering Center, provides a great improvement in living conditions for border guard troops garrisoned 50 kilometers south of the Georgian capital of Tbilisi.

The station, constructed under the U.S. Government-funded Georgia Border Security and Law Enforcement (GBSLE) assistance program, coordinated by the U.S.

Bureau of Customs and Border Protection, is the largest Corps of Engineers project in the former Soviet state.

Although the Bureau is Europe District's main customer in Georgia, IEC also has other work there, such as a \$200,000 exercise-related barracks renovation for the U.S. Air Force's 3rd Air Force on the former Soviet Vasiiani Air Base near Tbilisi. A four-person project office in Tbilisi handles the varied work with permanent, temporary duty, and local national personnel.

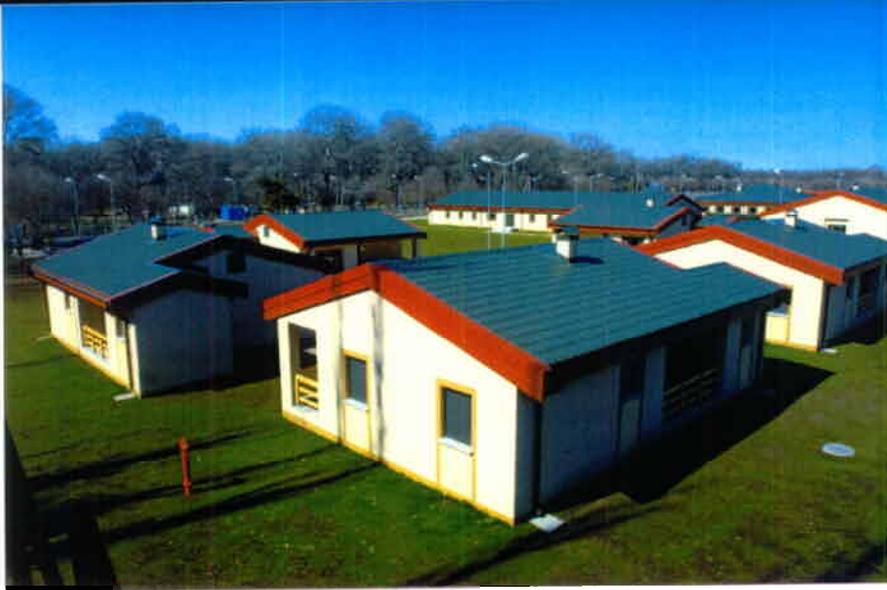
U.S. Ambassador to Georgia Richard M. Miles said the GBSLE program is one of the largest and most successful that the Bureau's Office of International Affairs has under its jurisdiction. "As part of the program, the U.S.

Bureau of Customs and Border Protection has been able to assist in providing the Government of Georgia with assets such as helicopters and airplanes, radar systems, facilities such as the one we are dedicating today, and also the renovated hangar at the Tbilisi airport and the Coast



Georgian Border Guard troops stand in formation during the opening ceremony of the Red Bridge Border Station in March. The \$4-million border station construction project, managed by Europe District's International Engineering Center, provides a great improvement in living conditions for border guard troops garrisoned 50 kilometers south of the Georgian capital of Tbilisi.

GEORGIA



Left: The \$4-million Red Bridge Border Station includes these single-family houses for officers and their families, as well as 64-person barracks, a dining hall, operations and administration building, vehicle maintenance building, base supply warehouse and an open storage building, and other support facilities.

Below: Charles Samuel (right), compares materials and specifications with Tamaz Chabashvili, foreman with contractor Lindsay Construction, at a barracks renovation project on Vasiani Air Base.

Guard administrative facility at Poti on the Black Sea," the ambassador said. Europe District's Program Manager Kellis Nobles said the Corps' construction of facilities is just part of a very broad assistance program.

Ambassador Miles explained the importance of the program, "Improving the ability of Georgia to exercise control over its borders ... will assist in reducing the threat of the smuggling of weapons of mass destruction, dual use materials and other forms of contraband" He said enabling the Georgian Border Guard, Ministry of Defense, and Georgia's Customs Department to exercise greater control over the movement of people and goods will also reduce the opportunity for terrorists to move undetected through the region.

At the ribbon cutting for the new station, Chairman of the Georgian Border Guard Lt. Gen. Valeri Chkheidze thanked the Bureau, the State Department, and the Corps of Engineers for this "huge assistance to Georgian Border Guards."

The border station facility includes five single-family houses for officers and their families, a 64-person barracks, a dining hall, operations and administration building, vehicle maintenance



building, base supply warehouse and an open storage building, munitions storage, utility buildings, gate security building, a dog kennel, two fire water storage pump buildings, and two guard towers. The station also includes two helipads, an electrical substation, waste-water treatment plant, sports field, soccer field, parade ground, perimeter fences, and paved roads and parking

areas. Construction on the station by contractor Zafer Taahhut Elektrik Insaat ve Tic A.S. began in May 2002.

Zafer, a Turkish firm, is also undertaking a nearly \$2-million project for the design and refurbishing of a helipad and aircraft parking apron at Tbilisi, adjacent to a hangar rebuilt in 2002, and the construction of a 700-square-meter communications service building at Lilo, Nobles said.



This hangar, renovated in 2002, is the first of several planned projects to update border guard facilities at the Tbilisi airport.



Nobles said contracts stipulate western design standards for construction and a competitive bidding process, both of which are new to the Georgians. "We do give the contractor the option, if they have a hard time finding the western specified product, or if he has a comparable Russian-standard item or material, ... [to] present it to us and tell us why this material is comparable or better, or what benefit the government has for allowing them to use it," Nobles said. The District now has a Multiple Award Task Order Contract in place for Georgia, and two Georgian firms currently doing work under that contract, including major renovations to Georgian Border Guard facilities.



James Kelly, Bureau program manager for the Border Security Program, said the Red Bridge Border Station project demonstrates the ability to plan and construct a facility ideally suited to border guards.

"The installation was designed with the needs of the Georgians in mind," Kelly said. "Although it is modeled after a lot of other facilities, it is unique to them."

GBSLE Chief of Party George Levitsky said the Georgians "were unable to commit the money to build a suitable facility [at Red Bridge]. They've lived in these miserable tents in what is effectively a flood plain." The new station will give them a fine base of operations from which to work in an important area, he said.

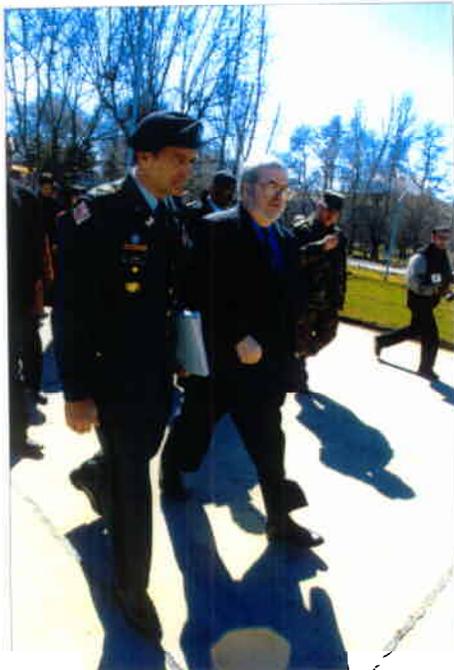
"One of the principal reasons that both the Georgian Border Guard and the Coast Guard, as an adjunct to the border guard, are important to us is because Georgia is a transit nation. It is in a very key southern flank location in the neighborhood of the Middle East, Central Asia, and Russia," Levitsky said. "There is tremendous potential for the transit of weapons of mass destruction components, dual-use technology, drugs, and trafficked or dangerous people to go through the Caucasus, as well as potential terrorist activity. Good border security, good border integrity here ... is very important."



Levitsky said program funding is approved by Congress from year to year. "We have to present a program and plan annually, and it must be approved every year. We can certainly plan, but we cannot promise anything for next year. The obvious practical assumption is that the program will keep going at least at a certain reasonable level that approximates this year and years past," he said of the program entering its sixth year.

The design-build approach works well in this fiscal environment, Nobles said, and is being employed for the upcoming upgrade of utilities and the construction of a barracks and dining hall at the Tbilisi Georgian Border Guard Aviation Facility.

Nobles said a design-build bid solicitation package is under development for improving the Red Bridge Customs Crossing Station, approximately half a kilometer from the new border station. Additional projects for Georgia's Customs Department are anticipated under the GBSLE assistance program for crossing stations on the borders of Turkey, Russia, and Armenia.



Col. Lee A. Staab, Commander, Europe District, tours the Red Bridge Border Station March 21, with U.S. Ambassador to Georgia Richard M. Miles (center), and Lt. Gen. Valeri Chkheidze.

State the Of ART

Morning update meetings are packed like a can of sardines, according to one United States European Command (USEUCOM) Marine Corps colonel. Col. Marsha Lee Culver, Assistant Chief of Staff at Headquarters USEUCOM, said morning updates are standing room only, but relief is on the way.

Elbow Room

Story and photos by
Brian H. Temple



Marine Col. Marsha Lee Culver, As
Staff, Headquarters U.S. Europe
inspects flooring during a walk-through inspection
of Building 2358 on Patch Barracks in Stuttgart,
Germany. John Adams, Area Engineer
with Europe District (standing) assists.

The U.S. Army Corps of Engineers, Europe District expects to turn over Building 2358, a renovated command center on Patch Barracks in Stuttgart, Germany, to USEUCOM at the end of this summer. The building will provide 31 offices, nine conference rooms, two kitchens, and a state-of-the-art command center to the USEUCOM staff.

The \$6.2-million renovation of the 34,133-square-foot facility involved demolition, structural configuration, and fire-proofing, but has been tied up in a struggle for money for over a decade.

Culver said the project's delay started in the late '80s. "All the funding that was set aside to do the renovation ... was taken away because this was back when the Berlin Wall was falling, Russia was reorganizing, ... and

Congress said 'Wait a minute, why are we going to invest all this money when we now have other expenses?'" Culver said.

The wait for the new command center has been long, but not necessarily bad, she said.

"The need for a command center ... did not go away and the dynamic nature of EUCOM did not change, in fact, it even got more complex," Culver said. Involvement in Africa, Operations Desert Storm and Desert Shield, and more recently, the global war on terrorism, have affected how the USEUCOM staff conducts

"The need for a command center ... did not go away and THE DYNAMIC NATURE OF EUCOM DID NOT CHANGE, in fact, it even got more complex."

its day-to-day operations.

To ensure the building met USEUCOM's needs, the Europe District design staff worked closely with



Samuel Baxter (left) and Regina Jugueta-Vetter (center) of Europe District, talk with Marine Col. Marsha Lee Culver.

USEUCOM, the *Staatliches Hochbauamt Reutlingen*, and Theater System Integration Office (TSIO).

"Although it was unfortunate that we could not have good working space during that time, ... [the delay] that took place allowed us to craft and design this building, I'm sure differently, than we would have done 11 years ago - much differently."

Although USEUCOM did not get funding for an extension to the building, they were able to gain some square footage inside by altering the former command center. Culver said the old center was similar to what one would see in movies with action taking place on the floor while leadership viewed the action from a mezzanine above.

"We did not get our extension ... but since we filled in that top deck we were able to get more office space - and it's still not big enough," Culver said. "It just doesn't hold all the operations that we would need to put into a robust command center, but the technologies in it are state of the art ... and there is a plan to continue on with these technologies to keep up [with] the pace of the environment we're in."

Regina Jugueta-Vetter, project engineer with the Stuttgart Resident Office said TSIO, a federal agency working with EUCOM, is taking advantage of the building's technology-accommodating construction.



Marine Col. Marsha Lee Culver (left), discusses the layout of Building 2358 on Patch Barracks in Stuttgart with John Anderson and Regina Jugueta-Vetter (right).

Raised floors allow for easy access to local area network, Integrated Visual Information System (IVIS), telephone, and other cables, and the building is equipped with electrical drops from the ceiling to allow for varied computer system configurations.

TSIO began laying about 160 miles of cable in February in equipment rooms.

Construction will be finished in late May, but the Corps, contract architect Firma Groetz, and TSIO, have agreed to keep some suspended ceilings open and to install the fire protection stoppers between the walls and cable trays once TSIO is finished in mid June.

Operating in phases has worked well so far, she said. The TSIO staff get several rooms to work in, and modifications are attended to one at a time. The Corps team then checks the completed rooms for quality assurance.

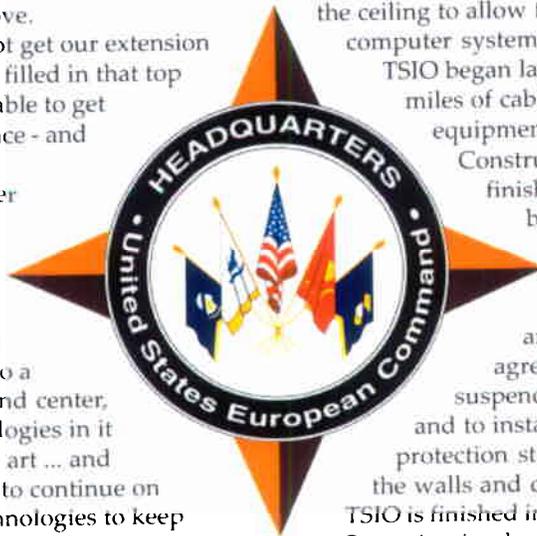
Jugueta-Vetter said the parties

involved have worked closely to keep on schedule and to keep the customer happy.

Culver said that being flexible when facing future challenges and looking at ways to optimize the facility is key. "In today's world of technology you can't just build something and dust your hands off and say 'I'm finished'. You've got to continually evolve. And, in fact, some of the designs of the rooms are made ... so we can configure them. There is some morphing we can do in the building right now."

Culver emphasized both flexibility and growth, and she recognized that the process has been challenging for TSIO, the Corps' team and the Bauamt. She thanked them all for being a strong team.

"We've changed commanders. We've changed people and personalities. Funding has been worked through different iterations. ... We've had a lot of growing pains and we've had a lot of changes and considerations," she said. "The Corps of Engineers has been very patient ..." and has been flexible with all the changes EUCOM has encountered.





Karl Hübner (left) talks construction with Sean Dolan at Baumholder's vehicle maintenance facility site.

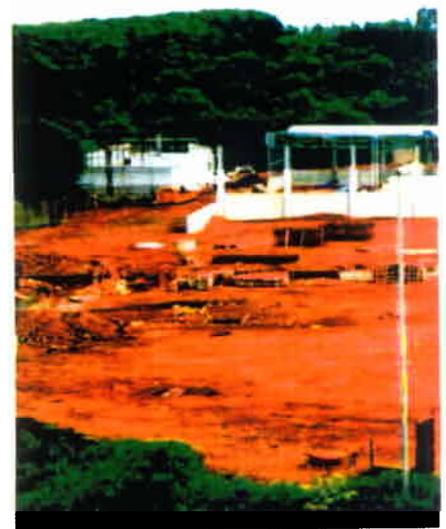
Horses to HUMVEES

Story and photos by
Grant Sattler

The horse is out of the barn - vehicle maintainers in Baumholder will not be working in derelict stables any longer. The Baumholder Resident Office is progressing on the first of three major maintenance facility construction projects on Smith Barracks in Baumholder, Germany.

Project No. 1, programmed at \$9 million, is the design and construction of a direct support vehicle maintenance facility to the U.S. Army Europe standard. The facility will include a heavy maintenance shop, two light maintenance sheds, a storage facility for deployment-related equipment, hard stand, oil/water separation, adjacent roadways and parking lots for soldiers' privately owned vehicles, said Project Engineer Martin Rothhaar.

Construction began September 2002 on the indirect project managed through the *Staatsbauamt Idar-Oberstein* under the international agreement known as ABG75. Site preparation work began with the demolition of existing maintenance buildings and leveling of the tiered hillside site to a single level about the



equivalent area of five football fields.

Completion of Project No. 1 is anticipated by March 2004, Rothhaar said.

In total, there are three vehicle maintenance shop projects currently planned for Baumholder, Resident Engineer Sean Dolan explained. Project No. 1 is under way and construction contracts are set to award for the other two, he said.

Site preparation and remediation of soils from decades of spilled petroleum products have been completed in the first phase for Project No. 2, located just down the road. Structures demolished there were originally horse stables dating from early in the 20th Century. Construction in the second phase for this motor pool facility project will also have two sheds, a maintenance shop, and deployment building, which is adapted to a two-tiered site.

In the third project, existing maintenance Buildings 8328 and 8330 will be extended on both ends, more than doubling their capacity. The project also includes five storage sheds without maintenance bays and two grease racks as well as a deployment storage building and the hardstands which will be replaced, Dolan said.

A primary consideration for all three projects has been to ensure the design will accommodate any future vehicles. "We've planned ahead ... we should be able to accommodate any type of new equipment that the Army may employ in their future force structure," Dolan said. "Today we're looking down the road as we're designing and building facilities."

Rothhaar said the maintenance building where heavy maintenance will be performed on a variety of vehicles is 103 meters long and 20 meters wide with a total of 20 bays. The two-story center of the facility will house administrative space, tool rooms, and break areas for soldiers. Other features of the enclosed facility are inspection pits, compressed air systems, and four overhead cranes. Each end of the shop will have two overhead 10-ton capacity cranes that can be moved laterally and horizontally to cover the entire work area. Rothhaar said the cranes can be used in tandem

to increase the capacity to 20 tons.

While heavy maintenance will be done in the maintenance shop, light maintenance will be performed in two covered sheds with 16 bays to a side, for a total of 64 work spaces. Each shed has a maintenance bay with two working pits for changing fluids and performing low echelon maintenance at one end, Rothhaar said.

The pits, like other major components of the buildings, will be precast and brought on site for installation. The contractor, a joint venture of firm Walter Bau and firm Bilfinger and Berger, began construction first with the shed farthest back on the site.

Dolan said the construction was somewhat unique as concrete foundation blocks were cast in place on site along a row in the center where the shed would stand. Then prefabricated pillars were trucked to the site and set into the blocks. "Once it is down in there, they grout it in place," Dolan said.

"[using] high strength, non-shrink grout."

Steel rafters with an inverted pitch are placed atop each pillar, making a "Y" shaped roof structure. The sheds are then given a metal roof skin and the sides are enclosed. Finally, the concrete floors and work pits are completed.

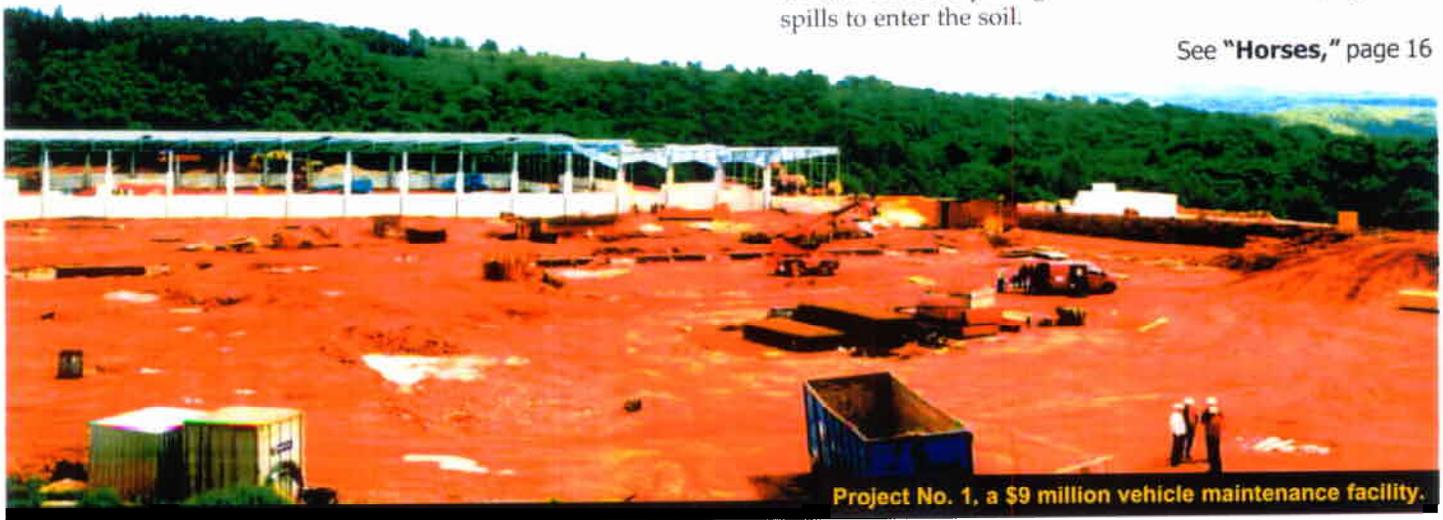
The maintenance shop uses similar blocks and pillars, but rather than being aligned along a central spine, the pillars are around the outside walls in a more conventional design necessary to support the cranes, Dolan said. The maintenance shop, like the deployment storage building built using normal masonry block construction, will be fully enclosed and have a normally pitched roof. The deployment storage building is designed to contain deployment maintenance kits and equipment used to transport vehicles.

The entire vehicle storage hardstand area surrounding the facility is curbed to control rain runoff which will flow into an oil/water separator to mitigate potential contamination of soil and ground water.

"The type of contamination we've had in the past should not happen at the new facility," Rothhaar said. "All the runoff will be collected and run through the separator."

Additionally, all of the hardstand will be concrete. Gone are the concrete paving blocks that allowed seepage from spills to enter the soil.

See "Horses," page 16



Project No. 1, a \$9 million vehicle maintenance facility.

Protecting the Force

Story and photos by Brian H. Temple

U.S. Army Corps of Engineers employees are working hard to keep terrorists at bay. Europe District teams and contractors are rebuilding and fortifying gates, installing retractable bollards, reinforcing perimeter fences, and equipping buildings with blast resistant windows and doors.

One such project, a \$1.9 million force protection effort at Leighton Barracks in Würzburg, Germany, will be completed in July, increasing protection for U.S. Army Europe troops there.

Frank Gonzales Jr., project engineer with Europe District's Ansbach Area Office, said the Corps is using contractor Mickan General-Bau-Gesellschaft Amberg mbH & Co. for several jobs. Mickan will build a new guard shack at the First Infantry Division (IID) gate, and

equip the IID headquarters with blast resistant windows, doors, reinforced suspended ceilings, and air ventilation systems.

The windows, some of which are more than eight inches thick and cost around \$8,000 apiece, have to be installed by crane, Gonzales said. "Looking at a drawing you try to visualize the frame, the window, the glazing in your mind, but once you actually see it, it's astonishing."



First Infantry Division Guard Shack

Gonzales said they had just four days - one training holiday, a weekend, and a federal holiday - to complete the job. "The plan was to install a protective covering [over furniture], demolish the ceilings, install the ducts and the AC systems ... and send in a cleaning crew to clean up the dust and shampoo the carpet," Gonzales said. During that four-day



These pipes will be connected to form an oil/water separator preventing water and soil contamination.

"Horses" continued from page 15

The separator will be alarmed, notifying the Directorate of Public Works when it needs to be emptied of oil, Dolan said.

Environmental considerations also played into preparation of the site. Concrete from the demolished buildings was crushed to reuse as fill material. "It makes a nice, well-graded product," Dolan said. "They'll use that various places on site rather than haul it off to a land fill."

Some of the extra fill has been used to reduce the grade of a side road accessing a rifle range and military operations in urban terrain training area.

"We had lots of excess material so it made sense to try to utilize it and mitigate the effects of a steep road grade during winter weather conditions," Dolan said.

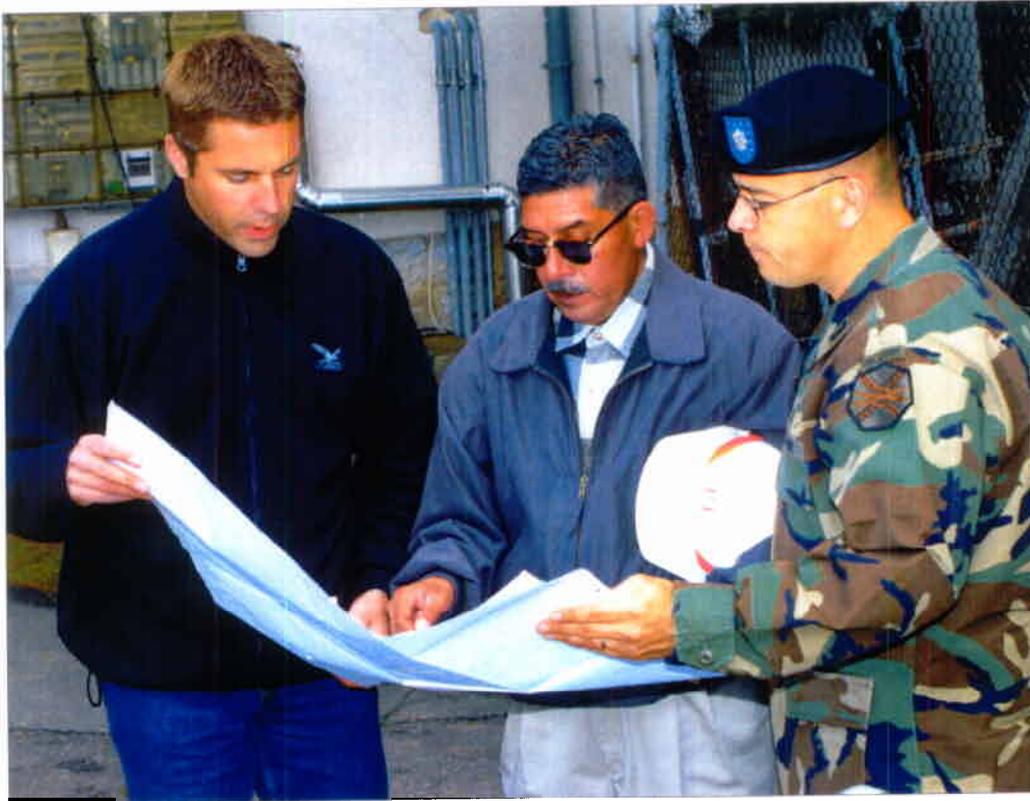
Karl Hübner, Chief Engineering, Planning and Services, from the 222d Base Support Battalion's Directorate of Public Works, said the project is going well and that integration into the existing base infrastructure has been no problem.

"We've had enough time to plan for it," Hübner said. "I remember maybe 12 or 13 years ago the first attempt was made for this project, ... but it's been slipping in the MCA and so on. So we had plenty of time, [along with] the Bauamt to do good design."

Hübner said USAREUR - Installation Management Activity has been involved in the design process all along, ensuring the facility meets the current standards.

Dolan said the Corps has an excellent working relationship with the Baumholder DPW. "[W]e work closely together to try to make sure the customer gets what they really need."

Dolan said that Rothhaar, as the project engineer for Project No. 1, is performing design review for maintenance facility Projects No. 2 and 3. "The lessons that he's learned on this one [can be applied] when he's reviewing plans and specs on the other ones ..." he said.



(Left) Volker Ender, construction representative with Mickan General-Bau-Gesellschaft Amberg mbH & Co. (left); Frank Gonzales Jr., Project Engineer for Europe District's Ansbach Area Office (center); and Lt. Col. Richard Hook, director of public works, 98th Area Support Group; discuss the design for the First Infantry Division's (1ID) headquarters on Leighton Barracks in Würzburg, Germany this past May.

(Below) Reinforced fences near the 1ID gate on Leighton Barracks.

time frame, windows and doors were also installed, as were lighting fixtures and the steel reinforced ceilings. "If you don't have good advanced planning your schedules are not going to work. It came together as planned," Gonzales said.

Efficient coordination between Capt. Robbin Halstead, 1ID commandant, Volker Ender of Mickan, and Lt. Col. Richard Hook, director of public works, 98th Area Support Group, ensured construction finished by the end of the four days. The team has also helped to keep other construction on schedule, Gonzales said.

Hook said he specifically enlisted the Corps for their knowledge and experience in force protection work.

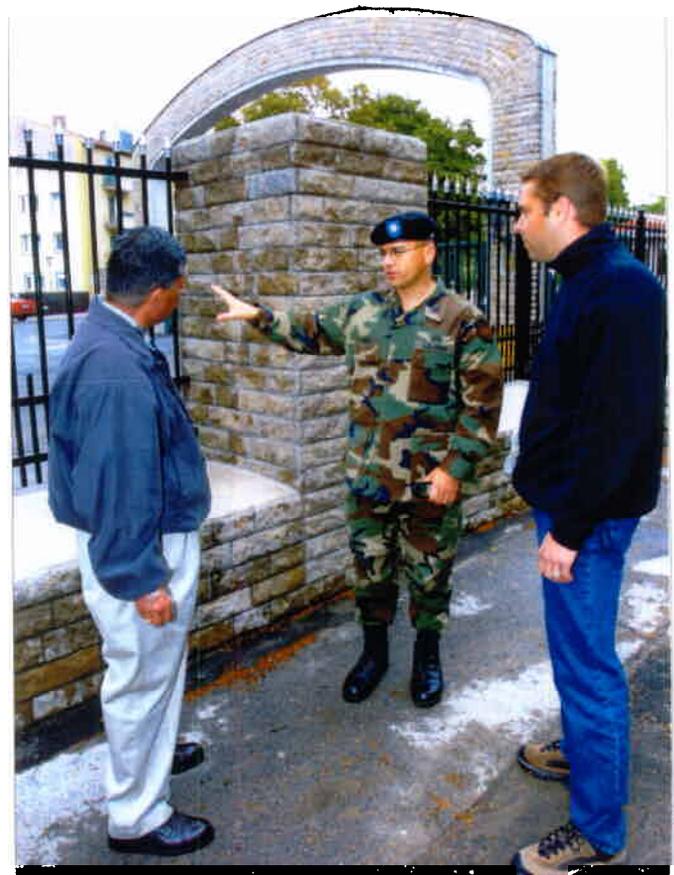
"I was aware that the Corps of Engineers had a lot of experience ... [with] force protection projects. For example, the Omaha District ... does a lot of studies in terms of blast affects, so that's why I picked the Corps of Engineers," he said.

He said the overall upgrades would be executed in four phases. Construction includes the now completed extension of the perimeter fence around the Leighton Barracks Chapel as well as moving the 1ID museum's vehicle and armor displays, repaving an access road and sidewalks, and combining several parking lots to provide 165 parking spaces.

Hook originally wanted the Corps to be involved with all phases of construction, but funding and timing challenges only enabled Corps management of the perimeter extension, and the more complicated construction such as the 1ID gate and headquarters reinforcements.

He said he knew the Corps could obtain specific materials such as blast protection windows and they understood the design and construction aspects of such materials.

Since September 11, 2001, the Department of Defense has





Frank Gonzales Jr., Project Engineer for Europe District's Ansbach Area Office (left), and Michael Annand, Europe District Regional Program Manager for the 98th Area Support Group, discuss the finishing touches that need to be done on the First Infantry Division's (1ID) headquarters building, and the adjacent 1ID guard shack on Leighton Barracks in Würzburg, Germany.

released funds for communities to reinforce the protection of troops and the U.S. Army Europe has adjusted the force protection standards, he said.

Hook contacted James Noble, an architect and Force Protection Team Leader with Europe District, in February 2002, to get guidance and cost-effective ideas on implementing the standards in Würzburg. Noble worked with Hook to get the design completed by September 2002. The 98th ASG received the money and construction began the following month.

Hook said he is pleased with Noble's resourcefulness and economic savvy.

He cites an example where Noble suggested to arrange the 11D museum's armor and vehicle displays to provide greater stand-off distance for the 11D headquarters. Stand-off distance is the measured space between any parked vehicle and the exterior of a building.

This would be completed in conjunction with the proposed combined parking lots. "Jim Noble was the one who brought that up back in February and March of 2002 saying, 'Hey, you can do this so you don't have to buy such expensive windows, especially for the back side of the building, getting

that [extended] stand-off, that's easier,'" Hook said.

Noble said he looks at the overall picture to establish what each community needs. His goal is to provide customers with a safer environment while saving them money during the process. With the 11D project Noble said, "It makes the museum nicer, you're giving them a consolidated parking area and

"You guys talk about 'value engineering' [and are] helping us out."

force protection actually becomes invisible. That's really the goal."

The 98th ASG has been active with executing force protection construction and things are gearing up as well in the 100th ASG community of Grafenwöhr, he added. Noble said he is taking a similar approach to Grafenwöhr's multi-million dollar expansion and renovation under the Efficient Basing-East initiative.

"Rather than taking it building by building and applying the standards to that building, we've worked with the ASG and the DPWs ... and [are] taking another several steps back to get a good overview of the whole installation," Noble said.

Solving force protection challenges

on a building-by-building basis can be costly, Noble said, but by incorporating force protection in overall design, hundreds of thousands of dollars can be saved.

By placing parking lots at either end of a cluster of buildings and transforming the current infrastructure between them into a pedestrian zone with upgraded landscaping, customers can save money and enjoy a much better design, Noble said.

"The analogy and image we often use when we present these

possible solutions to the clients is to go back and remember when you were in college, it was that campus atmosphere with a pedestrian landscape," Noble said. "There's nothing that says you can't pull back and draw down the threat level to each building and still not end up with a better design in the long run."

Noble said the Corps is reaching out to the Stuttgart community as well, but no matter what projects they tackle, or where they will do the construction, he wants to keep his customers happy.

As far as the Würzburg construction is concerned, Hook is pleased so far. "I'm very happy with what's going on. You guys talk about 'value engineering' [and are] helping us out," he said.

Here's to Your Health

Story by Grant Sattler

With the help of the U.S. Army Corps of Engineers, the Europe Regional Medical Command is filling the prescription for quality patient care in Wiesbaden

Construction on phase one of a three-phase project for the Wiesbaden Health and Dental Clinic began July 2002 with the addition of a three-story structure situated just behind the existing clinic on Wiesbaden Army Airfield. The \$5.4 million addition and alteration project, primarily funded by MILCON dollars, increases the health clinic's patient treatment spaces from 19 to 36 office and examination rooms, correcting a shortage of treatment areas affording privacy for patients.

Plans were already under way when the closure of Bad Kreuznach and the re-stationing of the 1st Armored Division headquarters to WAAF two years ago prompted U.S. Army Europe to provide \$650,000 in Operations and Maintenance Army re-stationing monies. The funds provide for the improvement of space necessary to accommodate the 1,500 patients added to the 11,000 eligible beneficiaries.

The Corps is managing the project through the indirect process under the international agreement known as ABG75 using the *Staatsbauamt Wiesbaden*, which has contracted design firm Gehrman Consult GmbH of Wiesbaden and construction firm Peter Gross GmbH, said Europe District Project Engineer Shaleigh Daniel. Engineers representing the customer, Health Facility Planning Agency, and Europe Regional Medical Command, are also closely involved in the management of the project.

"They're very involved because there has to be so much specialized equipment and specialized requirements

that go in," Daniel said. "So it's good that they're looking out for that."

Raymond Flock, the U.S. Army HFPA's Europe Construction Program Manager, said there are many unique requirements for medical treatment facility projects — from materials, such as using stainless steel water pipes, to keeping detailed construction records for the medical facility's accreditation.

Daniel said the Wiesbaden Project Office has tapped into the Kaiserslautern Area Office for people with medical facilities construction experience and specialties in mechanical systems, and the District for electrical.

The customer meets on site weekly with the Corps to track progress, Daniel said. "The customer has been very active. We're getting constant feedback, ... they'll definitely get a product that they like at the end," she said.

Daniel explained that the engineers representing HFPA and ERMIC also provide the direct interface with the building's future occupants, ensuring various groups' needs and wants are addressed. "There'd be a lot more chaos if all those individual groups came to the Project Manager or project office directly," Daniel said. "The customer is such a help."

That direct interface began with planning the facility design that reorganizes medical functional areas to improve patient flow through the building, explained Long Chia, Project Engineer from the ERMIC, Health Facilities Planning - Europe.

After air conditioning, probably the most notable



Photo by Brian H. Temple

This \$5.4 million, three-story addition to the Wiesbaden Health and Dental Clinic will increase patient treatment spaces from 19 to 36 office and examination rooms. The U.S. Army Corps of Engineers is managing three construction phases to expand the clinic for the Europe Regional Medical Command. Phase one began in July 2002.



photo by Brian H. Temple

Troupis Avraam (left) hands sheets of fiberglass insulation to Hawdi Bas atop the Wiesbaden Health and Dental Clinic expansion. The addition and alteration project consolidates medical and dental activities within a single building and alleviates space shortages.

amenity will be an elevator in the common atrium connecting the new structure with the existing building. The elevator will make the entire clinic accessible for handicapped visitors and patients, bringing the facility in line with Americans with Disabilities Act's 1990 requirements. The project also corrects life safety problems from various shortcomings of the 1930s-era building.

"The existing clinic was already programmed for the addition and alteration because it was undersized and does not meet life safety and ADA requirements," Chia said. "But with the increased patient population the project scope was increased."

USAREUR's OMA supplemental re-stationing funds will repair life safety deficiencies and upgrade the existing utility systems of the dental clinic, but the biggest benefit to the project will be the consolidation of medical and dental activities within a single building, Chia said.

Several medical functions now separated from the main clinic facility, such as optometry and physical therapy, will be able to move into the building. Space shortages will be alleviated in waiting, exam, laboratory, X-ray, acute care, patient administration, records, and staff support sections of the existing clinic, Chia said.

Completion of the first addition is anticipated in the August 2003 time frame, Flock said, after which portions of the clinic operation will move into the new building. Patient Administration will move in to a newly constructed pavilion and the Dental Clinic will relocate to temporary structures near the airfield in the project's second phase costing an additional \$400,000. Alteration of the existing building is expected to be completed by September 2004.

The third phase entails moving the dental clinic back into the renovated building and re-configuring the basement of the new building for its permanent occupants. The health clinic occupies the new building as well as half of the renovated building with the dental clinic taking up residence in the remaining half.

Daniel said, "It's kind of a juggling act ... to

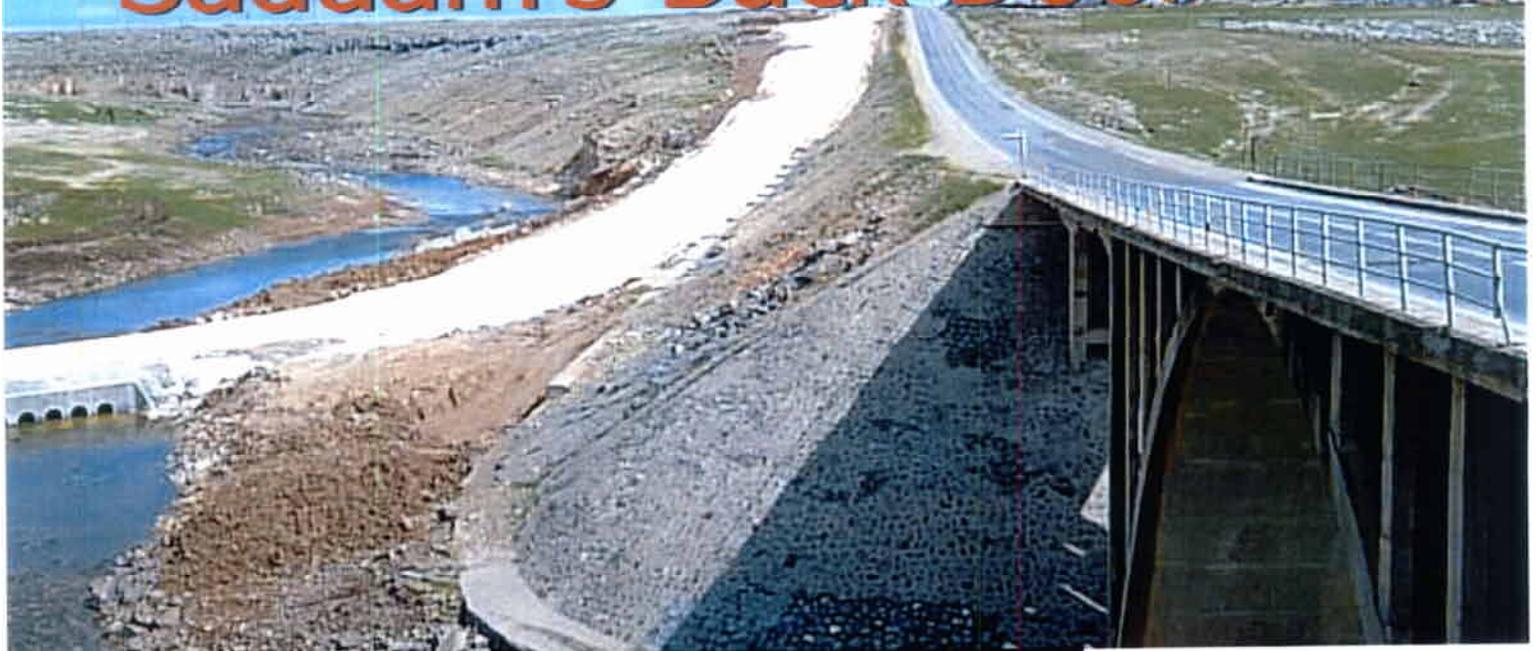


photo by Brian H. Temple

accommodate everybody and still keep the clinic operational without having to move too many of the services."

She said the phasing is the most unique aspect of the project. "There are going to be some modifications done to the new building that are just temporary for the phasing, and keeping it open for handicapped access," she said.

Blazing a Trail to Saddam's Back Door



Bridge bypasses, such as pictured, allow transport of heavy equipment.

Field Force Engineer Teams Make the Difference in Turkey

Story by Grant Sattler

Delivering construction projects at two dozen sites along the route from Mediterranean ports to the Turkish-Iraqi border was an engineering mission in the best *Essayons* tradition.

The Turkish government's decision to support Operation Iraqi Freedom with air corridors, rather than permit an overland drive to Baghdad by the 4th Infantry Division through Turkey and Kurdish-controlled northern Iraq, does not diminish the fact that Army Engineers blazed an 800-kilometer trail, preparing facilities and infrastructure along a strategic line of communication in less than a month's time.

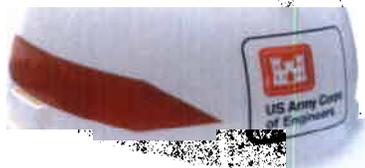
The accomplishment was the feat of U.S. Army Corps of Engineers Forward Engineer Support Teams, working together with the 18th Engineer Brigade, a unit comprised of soldiers from the former Deputy Chief of Staff, Engineering, U.S. Army Europe.

Pulling off the task in such a short time took plenty of preparation. Europe District became involved in engineer planning in August 2002 for what became Operation Iraqi

Freedom, as the Emergency Operations Center team began working with U.S. Army Europe, said Simon Rosa, Europe District's Chief of Operations, Readiness & Security.

In January 2003, seven Europe District engineers joined three infrastructure assessment and two reconnaissance teams visiting multiple locations in Turkey as part of USAREUR's participation in the U.S. European Command site coordination visit.

Jonathan Carr, Susan Bittick, Joni Rhiner, Omar Chavez, Rebecca Goetzke, and Shawn Pelowitz deployed from Germany to evaluate port facilities, railheads, and possible marshalling and billeting locations. They joined Capt. Todd Plotner, along with other personnel from The U.S. Engineering Group, commonly known as TUSEG, the



TURKEY



photo by Joni Rhiner

(Above) FEST team members located facilities to lease and modify, like the storage units above, in preparation for the flow of troops and equipment through Turkey.

(Left) Most team members deployed to remote locations in Eastern Turkey and lived under austere conditions while awaiting amenities like showers and heated tents. Shower trailers, like the one to the left, were delivered to make a comfortable home for transient troops.



photo by Joni Rhiner

Corp's permanent presence in Turkey based on Incirlik Air Base near Adana.

Also deployed were Dr. Larry Lynch and Terry Stanton of the Engineer Research and Development Center who traveled from Vicksburg, Miss., to provide invaluable technical support.

Along the proposed route, team members evaluated the condition of road surfaces, conducted bridge analysis and load classifications, and noted any pre-existing environmental problems.

The deployment was a baptism of fire for the team's Tele-engineering tool kits as they compiled site data collected daily during the 10-day mission.

Pelowitz, a project manager with the District's International Engineering Branch, said they trained on the equipment before they deployed to work out any hiccups. "There were quite a few specialized pieces of equipment that were newly developed, so they had a lot of glitches, a lot of bugs that you had to work through," he said. "Once we got down there, [the equipment] still had some issues, but overall it went well."

Pelowitz said despite minor equipment challenges, the Corps' presence and technical abilities impressed the multi-forces team. The Corp's video teleconferencing capability not only exceeded FFE team member expectations for data transmission, but came to be the communications link of



photo by Susan Bittick

(Left) Capt. Todd Plotner, from The U.S. Engineering Group in Turkey, commonly known as TUSEG, assesses a railhead to be considered as a possible transportation site for troops and equipment. Plotner joined Corps employees from Germany on a reconnaissance team to search for locations to build up infrastructure supporting troop movement.

(Below) Joni Rhiner, a project manager with Europe District, joined the Forward Engineer Support Team to help combat engineers such as this 1ID soldier.

choice for other team operators. The District team joined with Marines, Army and Naval personnel and served not only engineering staff, but also logistics, transportation and force protection personnel.

Working with a multi-forces team and having the tools and talent to support them was a positive experience, but it was also a challenge, Pelowitz said. "You really felt that people were going to be depending on what you did, that it would have a really big payback. You knew that if you screwed up there were going to be 30,000 guys behind you cussing your name out. It was rewarding," he said.

Although most of the reconnaissance team returned to Germany to pass along their findings to those soon to deploy, Jonathan Carr remained in country following the assessments to work with the newly formed 18th Engineer Brigade.

As the mission developed, USAREUR called for additional engineering expertise in country. Bittick and Rhiner, joined by team leader Lt. Col. Stephen Tennant, Michele Sung, Arbor Drinkwine, Bryton Johnson, and Cathy Drosos, returned in February as the Forward Engineering Support Team from Europe District. They were joined by team members from the Turkey TUSEG office — Maj. Joe Gandara, Capt. Plotner, Capt. Tom Asbery, Ralph Ross,

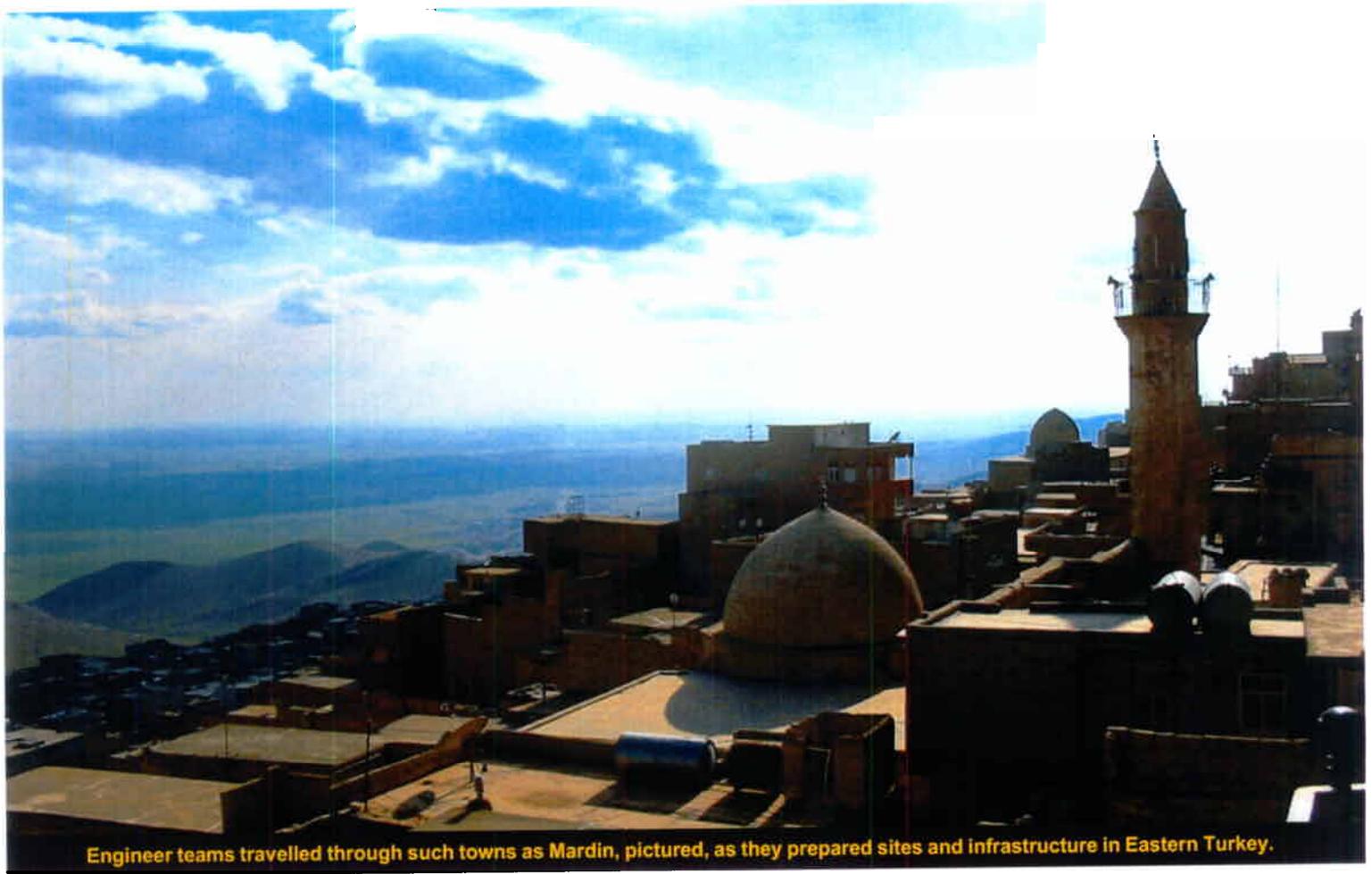


U.S. Army photo

Francisco Colon, Charlie Truesdell, Lloyd South, Okan Nalbant, and Orkun Dincer.

The Europe District FEST joined the Contingency Real Estate Support Team (CREST) comprised of per-

sonnel from five different Corps districts, the FEST-As from New York and Philadelphia Districts, and non-commissioned officers from 249th Engineer Battalion (Prime Power). These teams traveled throughout Turkey providing



Engineer teams travelled through such towns as Mardin, pictured, as they prepared sites and infrastructure in Eastern Turkey.

everything from master planning to environmental assessments to construction oversight.

Directing operations at remote locations across eastern Turkey was a daily challenge. "It was like herding cats," said Lt. Col. Stephen Tennant, Europe District's deputy commander. Many team members worked and lived under austere conditions while awaiting the construction of basic amenities like showers and heated tents, but others like Johnson set up camp on Incirlik Air Base.

Johnson coordinated an environmental "inventory" focusing on the containment, transportation, and disposal of hazardous materials discovered at potential communications sites, or nodes. This environmental baseline study was orchestrated between Turkish officials, contractors, and other team members throughout Turkey.

"[We would] go out to the different nodes across Turkey before the Army got there ... to determine what was there that could pose a problem in the future. Were they any contaminants, were there any waste barrels, trash or debris? ... So, once the Army had moved through Turkey and backed out of these nodes, there would be another baseline study to determine what we impacted, ... versus what was there already," Johnson said.

The team's interaction with the combat engineers was successful, he said. During the 18th Engineer Brigade's appreciation ceremony, combat engineers said they would not

have been able to put the infrastructure together as quickly as they did had it not been for the expertise of the Corps, Johnson said.

Johnson said he enjoyed his time on Incirlik Air Base and felt that his efforts helped the combat engineers greatly. "It was a big honor being able to go out there and help the war fighters. ... It's interesting interacting with the soldiers and being able to tie in what I normally do for a living with something a whole lot bigger than I've ever done," he said. Johnson's work lasted a month, but the TUSEG workload - largely for the U.S. Air Force - continued without pause. Gregg

Takamura, Pedro Corona, Mike Maynard, Rob Lewis, and Shaleigh Daniel traveled on short notice from Germany and

Italy to help the remaining TUSEG employees.

The engineers coming out of Europe, where much of the work is accomplished through an indirect process using host nation government engineering entities, found the direct management of the projects a change. "It was a lot like in the States, working on direct contracts and a lot of Job Order Contract and Multiple Award Task Order Contract work," Daniel said. "They followed the whole Contract Quality Management Process, the way the Corps likes to do business."

Daniel said that the contractors took the change in Corps personnel in stride. "I was just really impressed with the contractors. They were accepting of the whole situation and just worked with the flow."

"It was a big honor being able to go out there and help the war fighters."