Engineering



Vol. 3 Fall 2008

From the Commander



New fiscal year brings opportunity to prove ourselves to region

Europe District Team,

Although it's only been a few short months since I've joined the District team, it has already been a fun and rewarding opportunity. I have learned a lot and it has been great to see the reputation of the district first hand. I've seen the passion you demonstrate in your everyday efforts and how adaptive and energized the entire district is during year end closeout.

These are fundamental traits to success – and I'm humbled to be leading such an eclectic team. You've proven yourselves in one of the most challenging and progressive

years this district has ever seen. This district truly is more than the sum of its parts; and I want you to know I'm proud. You truly are a world-class workforce.

FY09 promises to be even busier as we set the conditions to grow our program to support our customers' needs. We will set up a new branch for MDA, including new offices in Poland and the Czech Republic. We will begin the initial stages for a new hospital in Landstuhl and we will expand our support to USAREUR and 7th Army through the establishment of a Joint Task Force-East office in Bulgaria and the execution of roughly a half-billion dollars in construction and renovation in Wiesbaden.

One of the biggest challenges will be finding the right people to join the Europe District as we expand our work force by up to a hundred people in the coming year or two. ... Finding folks who have the right skills but also the right passion and temperament.

During the coming year I also want to continue to strengthen our relationships with our strategic partners, especially the newly formalized AFRICOM, by meeting with our customers more often, improving the ease and efficiency of providing them information, and ensuring they remain an integral part of our execution effort to deliver on our promises.

And it all starts now – the first quarter – as we embark on our new, end-of-year projects, prepare for expansion into new programs, and align our critical actions in support of the division and headquarters campaign plans.

One of the chief's campaign plan's missions is homeland security – a critical component to our nation's strength. Although it may at first seem odd here in Europe, we support homeland security in a number of ways. Most obviously, we keep our warfighters, Civilians, and Family members safe while in Europe by providing enduring facilities to support the mission and their quality of life. More than probably any other district, we also promote homeland security by working closely with allies and international partners across Europe and Africa. That's the focus of this issue of Engineering in Europe.

Finally, I want to emphasize the importance of our efforts to continue our world-class outreach support and voluntary deployments to support the Gulf Region Central (GRC), in particular, and the entire Afghanistan and Iraq Corps of Engineer offices in general.

The District has been given the mission to continually fill five to six positions in GRC, located in Baghdad. I can personally attest that it is very rewarding. Of all the districts in Iraq, this is the most dynamic, most important, and actually has the best amenities and life support. Deployment is never easy, but it is a very rewarding challenge. I guarantee you will develop new skills, experience the heart of our mission first hand, and help out a great cause.

I also guarantee that we're not alone in all these endeavors. Our sister districts, our division headquarters, and our national headquarters are there to help. I encourage you to rely on them when appropriate. Be a part of the regional team. Be a part of a community of practice. Share your ideas willingly. It's only through this support network that we can forge through one of our most challenging years and emerge smarter, tougher, and ready for another challenge.

Building Strong!

U.S. Army Corps of Engineers

ontents

Building Borders

USACE engineers help the tiny nation of Georgia secure its borders through a unique Dept. of Homeland Security contract.

Task Force Construction

Army engineers' progress on facilities in Eastern Europe helps strengthen U.S. presence on the Black Sea and support international security efforts.

Crimefighting in the Caucasus

Two USACE construction projects in Tbilisi, Georgia, help this fragile nation's law enforcement program modernize to meet Western standards.

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On the Cover



Sunny skies look down on an almost-finished border crossing station on Georgia's border with Russia near the town of Kazbegi. U.S. Army Corps of Engineers officials expect the site to be complete by next spring.

Cover photo by Justin Ward



Story by Justin Ward



n August, six days of war battered the tiny nation of Georgia. Roaring Russian tanks and errant gunfire blasted through the relative tranquility seen since independence was gained in 1991.

Belligerence is only one of the ills plaguing this neighborhood. More chronic are the attempts to smuggle contraband goods through the previously nonexistent borders with Russia, Azerbaijan, and Armenia. Firearms, cigarettes, uranium and other smuggled substances have all been confiscated at the Georgian border at a rate far too frequent to be acceptable.

That's why the U.S. installed a border protection program in 1998 to establish both the means and the force to keep unwanted people and goods out of the country. It would push secure borders a little further, halt the rampant nuclear proliferation blighting the region, and help this fledgling nation build the capacity to protect itself.





Left: Jersey walls still need to be placed at the new border station at Lagodekhi.

Right: Cars pass to Azerbaijan through a temporary station at Lagodekhi.

ooking to traffic nuclear proliferates into the country of Georgia? ■Or spirit away bootleg goods? Sorry. You're out of luck.

While the running of contraband items and weapons through the Caucasus region may have been a cinch a few years ago, would-be smugglers now have the guarantee of being arrested at the border, say officials, thanks to a U.S.-funded program to install new standards and capacities in this small, mountainous nation.

This fall, the U.S. Army Corps of Engineers will construct the last of the Georgia Border Security and Law Enforcement (GBSLE) assistance program's border projects, intended to change this nation's status from porous to secure.

Background

Previously, mules had it easy. The Soviet Union's collapse in 1991 allegedly left nuclear facilities - and the

weapons and highly-enriched uranium located within - vacant and occasionally unguarded, leaving the estimated 35,000 warheads literally open to the public. All lawbreakers had to do was sneak onto the complexes, take what they wanted, and drive south through the spottily guarded Georgian borders. Next stop: Middle East.

In 1998, the U.S. government funded the GBSLE program to help Georgia better control its borders, coastline, and other ports of entry to reduce the threat of weapons smuggling and other illicit trafficking.

Since then, Europe District employees have helped renovate airfields and airports, constructed radar stations along the country's sunny Black Sea coast, and built numerous offices, barracks, and utility lines to ensure the operability of the Georgian security forces.

The biggest improvements to cap illegal trafficking have been the modernization of two of Georgia's main border crossings - Sadakhlo, on the Armenian border; and Red Bridge, on the Azeri border - to the tune of about \$2.5 million each.

Two other major border stations - Kazbegi, on the Russia border and Lagodekhi, also on the Azeri border and seven remote border stations are expected to be turned over this fall, ostensibly completing the bulk of the District's involvement in the program.

All told, these new border facilities the District has constructed will manage about 90 percent of Georgia's border traffic, said James Kelly, GBSLE chief of party. And, at each crossing, a new U.S. Department of Energy-funded radiation detector stands ready to sniff out illegal radioactive materials.

"The worldwide approach is nonproliferation," said Kelly. "We don't want goods entering the United States that might contain radioactive materials or that could be used to make weapons of mass effect. So we're



Kazbegi (Russia)

Cost: \$2.4 million Finished: Spring '09

Scope: To construct a heavytraffic border crossing with

Russia





_AGODEKHI (AZERBAIJAN)

Cost: \$775,000 Finished: Fall '08

Scope: To construct a heavytraffic border crossing with

Azerbaijan



attempting to push the borders out. By enhancing systems, infrastructure, and equipment at other nations' borders, we're really reaching out to them to partner with us to make sure that these goods don't flow anywhere. ... They don't get into other countries. They don't enter Europe. ... They don't enter anywhere. They're interdicted at the border and then safely stored away from harm's way."

Already, radiation detectors have come in handy. In 2003 at Sadakhlo, Georgian border guards arrested a man attempting to cross into Armenia with 200 grams of bomb-grade uranium. And in 2007 at Red Bridge, Georgian customs officers working on the border discovered a car attempting to smuggle across the border a dangerous mixture of plutonium and beryllium, which can be used in the making of nuclear bombs.

"I'm very proud to have been a part of the team working to secure the borders here and protect this country, and the international community as well, from illicit trafficking like this," said Charles Samuel, the District's area engineer in Georgia, just after the Red Bridge arrest. "Events like this verify the importance of our mission."

Kazbegi

Unpredictable flooding, poor roads,

and an austere location under a dangerous cliff amid the tallest mountains in Europe haven't kept the Corps of Engineers from making progress on this \$2.4 million border station.

"This is probably the most demanding project I have," said Sgt. 1st Class Chris Adam, the District's project engineer. "We couldn't get to the site for a

"The worldwide approach is nonproliferation. ... So we're attempting to push the borders out."

-James Kelly, GBSLE chief of party

few months because the road washed away. And in the winter it's almost entirely closed off. So, yes, it's pretty demanding."

When complete in November, this station in Georgia's scenic northern terrain will be a vast improvement to the previous facility, said Adam, which was described as a small, metal "CONEX box."

"This will be a complete system, much better than the old station" Adam said. "It has area for the Georgia border police and customs to [work, including a] sleeping area, cooking area, and also an area for them to perform their daily duties. It'll be a 24-hour operation."

When the station formally opens, it will be the only official border crossing with Russia, Kelly said. This is important, he said, because it will deter traffic from using the crossings in the disputed regions of South Ossetia and Abkhazia, Kelly said, making routine travel between Russia and Georgia a lot less political.

"A lot of the traffic [has been coming] through other areas in Georgia where it's not supposed to enter – through some of the areas that are in dispute," said Kelly. "So, by having a facility built in Kazbegi ... the Georgians are really going to be able to control the traffic, people, and goods that come into Georgia and out to Russia. So it's a very significant port for us."

Lagodekhi

At \$775,000, this station in the verdant hills of eastern Georgia is somewhat smaller than Kazbegi, Sadakhlo, or Red Bridge. Nonetheless, it still is significant for the region.

"There was really almost nothing there previously," said Kelly. "And it's a fairly busy border crossing, with significant traffic coming both to and from Azerbaijan. So our effort was to build a facility [the Georgians] could



RADAR STATIONS

Cost: \$1.5 million
Finished: Summer '07
Scope: To construct three
radar stations along the Black

Sea Coast





RED BRIDGE (AZERBAIJAN)

Cost: \$2.5 million
Finished: Spring '05
Scope: To construct a heavytraffic border crossing with
Azerbaijan



use that was manageable, but that was also within our budget."

The site, completed in early September, includes five lanes, a main canopy, a truck inspection pit, a newly constructed customs processing center, two pedestrian lanes, new utilities, and a newly paved motorway.

"It's totally changed," said Shalva Khvadagadze, project engineer with the Georgia project office. "Everything is new."

Remote stations

Dotting Georgia's hilly southeastern border with Azerbaijan are small villages, many of which remain uncorrupted by modern conveniences like telephones, indoor plumbing, or paved roads. Connecting these villages are footpaths through the woods that have been traveled for centuries by villagers transporting wool and handmade goods from one town to

the next.

In the early 1990s, Georgian and Azeri officials drew a line between their countries, indicating agreed-upon borders. Suddenly, many of these neighboring villages were in different countries, which meant the paths crossing over this new demarcation had to be secured.

In total, about \$2 million has gone into constructing seven new border stations along these paths, including the lodging and office facilities for border guards and customs officials.

These "Remote Borders" projects are expected to be complete by this fall.

The future

Although nuclear proliferation attempts in the region continue, they are increasingly hampered by GBSLE and capacity-building successes.

The latest headlines about prolifera-

tion were in 2007, when the Georgian government set up a sting to arrest a Russian man attempting to sell \$1 million in weapons-grade uranium to Georgian agents disguised as radical Islamists.

These recurring instances prove that Georgia's capacity to interdict illegal trafficking has improved significantly and justify the U.S. government's decision to intervene in this country's border security.

According to Kelly, the Corps' continued assistance in both of these areas has been "invaluable."

"None of this ... could have been provided without the help and oversight of the Army Corps of Engineers," said Kelly. "We've always had a good relationship with the Corps of Engineers. They've provided us with good people to come down here and oversee our projects, and we've been very grateful for that."



REMOTE BORDER STATIONS

Cost: \$2 million Finished: Fall '08 **Scope:** To construct seven new border crossings along

Azeri border





SADAKHLO (ARMENIA)

Cost: \$2.2 million Finished: Fall '07

Scope: To construct a heavytraffic border crossing with

Armenia





MESTIA AIRFIELD

Cost: \$1 million Finished: Summer '08

Scope: To renovate a grass

airstrip along the Georgia-Russia border



Task Force Construction

Army engineers' progress on facilities in Eastern Europe helps strengthen the U.S. presence on the Black Sea.

By the begall plant struction in Romania is splete, say Corp.
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Story by Justin Ward

A construction contractor at the former 34th Mechanized Brigade Base continues earthwork on Phase I of the permanent base camp, expected to be completed in summer 2009. By the beginning of summer 2009, all planned U.S. Army construction and renovation work in Romania is scheduled to be complete, say Corps of Engineers officials.

That timeline is delicate though, because one construction effort is the "permanent" base camp near Mihail Kogalniceanu Air Base (MKAB) in southeast Romania – the host site for the 2009 deployment of the USARE-UR-led Joint Task Force-East (JTF-E) initiative, tentatively slated to kick off in July 2009.

"The whole reason we're here is to support the JTF-E mission; and the base camp is our biggest project," said Armando Solis, resident engineer in Romania. "So we'll set milestones, communicate transparently with our customers and clients every day, and make it work."

A steady course on the critical path means roughly \$55 million in construction must be completed between fall 2008 and summer 2009, making a hearty workload for the engineers on the ground.

"It's a lot of work, but it's essential that we get the permanent base camp

done," said Solis. "It's absolutely critical."

The "permanent" forward operating site, as it's called, is not for permanent U.S. facilities, but for enduring structures built to sustain deployments of up to 2,500 troops on six month rotations. It is in contrast to the temporary forward operating site, which was built by the Corps in 2007 to support smaller and shorter rotations of troops.

The facilities themselves – including barracks, company and battalion headquarters, and community support facilities – are intended to be basic in nature, supporting only temporary deployments of multi-service, multinational forces. The idea is part of the USAREUR's expeditionary stance to conduct bi-lateral training and engagement with two new NATO allies while executing 'Phase 0' – Engagement and Deterrence – of the global war on terror in the Black Sea area.

"JTF-E provides a great location for six-month training opportunities with two key allies in the global war on terror," said Lt. Col. Daniel Morgan, USAREUR operations and plans officer. "This supports transformation,



with NATO allies."

In addition to the main facilities that support this effort, engineers on the ground are also executing a utilities contract on MKAB for new roads and new water, electrical, gas, and sewer lines.

"SKE [the utilities contractor] is actually doing a great job," said Charles Bulla, project engineer. "The hardest part is figuring out the host-nation requirements ... you want gas, you have to pay the piper."

The Pentagon first revealed plans to support the expansion into Eastern Europe for rotational training in 2004, calling these leaner facilities anticipated to support only temporary deployments "lily pads." These bases were intended to provide a stable and capable support base for units executing engagement exercises throughout Europe.

Soon, the Corps of Engineers will begin to manage construction work in another Eastern European nation, Bulgaria, a key NATO ally in southeastern Europe, where \$61 million was recently awarded for a permanent forward operating site similar to the

The build-up will center on Novo Selo Training Area in eastern Bulgaria, where the DoD has routinely deployed troops for training since Secretary of State Condoleezza Rice signed a Defense Cooperation Agreement with Bulgaria in 2006.

"With the new facilities, Soldiers will have some of the comforts of home," said Maj. Jennifer Johnson, JTF-E public affairs officer. "Although they are here to train, great facilities never fail to provide Soldiers a morale boost at the end of a long day. It is certainly a step up from living in a fest tent."

The new construction work in Bulgaria brings the total of design and construction that Europe District has executed in Eastern Europe to almost \$200 million.

"But more important than the cost of the facilities is their value," said Solis, who will become the temporary resident engineer in Bulgaria in November. "These bases are part of a significant long-term investment in Eastern Europe. And they'll give today's and tomorrow's coalitions a great place to train."

District awards 43 million euro contract for new construction at **Novo Selo Training** Area in Bulgaria

Staff reports

WIESBADEN, Germany - U.S. Army Corps of Engineers Europe District has awarded a two-year, 43 million euro (\$61.15 million) contract to construct a Forward Operating Site at the Novo Selo Training Area in central Bulgaria to Sede Secondaria Italiana, the Vicenza-, Italy, based branch of Bilfinger Berger AG, a construction and services firm headquartered in Mannheim, Germany.

Bilfinger-Berger Sede Secondaria Italiana plans to use all local contractors, including its main Bulgarian teaming partner, Dolomit, based in Burgas, Bulgaria, to execute the project.

The contract provides funds for simple, expeditionary structures to be used in future joint military training activities.

Primary facilities include 23 barracks buildings to support about 2,500 soldiers as well as administrative, operational, maintenance, storage, dining, and medical facili-

Supporting facilities include utilities, roads, walkways, and parking areas.

Work on the contract is expected to begin in November and be completed by summer 2011.



Crime fighting in the Caucasus

Two construction projects in Tbilisi, Georgia, help this fragile nation's law enforcement program meet Western standards

Story by Justin Ward

t 2 a.m., an urgent call screeches through on the police radio. A jewelry store on Rustaveli Avenue in downtown Tbilisi is being broken into. The perpetrator might still be there.

Hearing this, a patrol officer in the area responds immediately, reverting

almost subconsciously to the training he recently received at the new police academy. Without delay, he arrives at the scene to find a man in all black scouring the store. Reflexively, the officer obstructs the only way out, draws his weapon, and commands the man to stop. Seconds seem like

hours as the officer intercepts the man, handcuffs him, and reads him his rights. Although the man says he's innocent, it's a successful arrest.

A short while later, a highly trained forensics team arrives at the jewelry store, searching for fingerprints, hair, fiber, or any form of evidence they





A project sign for the \$1.6 million Dept. of State-funded police academy project in Tbilisi, Georgia, gives basic information about the three-story facility that will be able to house and train up to 250 recruits at a time.

can collect and analyze. It's this evidence that can lead to the prosecution or exoneration of the arrested man.

This textbook scenario is how the Georgian police hope to manage all of their criminal cases, but operating at international standard is a big challenge, said Laura Malenas, the Department of State's (DOS) Bureau of International Narcotics and Law Enforcement Affairs (INL) program manager for Georgia.

But now, with the U.S. Army Corps of Engineers' upcoming completion of a brand new police academy and the nation's premier forensics lab, the Georgians will have the training tools necessary to make significant progress.

"Georgia is about to transition from a Soviet-style judge-only trial system to a jury system," said Malenas. "And in a jury-trial system you have to prove beyond a reasonable doubt to a jury of your peers that someone is guilty."

Evidence, therefore, is paramount, Malenas said. Without the proper collection, analysis, and storage of evidence, convictions cannot be made and the rule of law cannot be followed.

"If they're going to have a trial-byjury system where people's lives and freedom are on the line, then the role that evidence plays in that jury system is really critical," Malenas said. "And Georgia does not have facilities that meet international standards to be able to do that. Yet."

Police Academy

Law enforcement begins in the classroom. And in this new, three-story, \$1.6 million facility on the outskirts of Tbilisi – where police officers from all over the country will train on international policing techniques – classrooms abound.

Previously, officers trained in a mistreated, ageing facility with few classrooms, broken windows, and poor heating. This, officials say, made it difficult to maintain focus and

order throughout the year, even if the officers were motivated.

Plus, without barracks or a hotel allowance, officers outside Tbilisi could only pay out of pocket or stay with friends or family while training.

"If you're forced to sleep on a couch, how focused can you be in doing your training or doing your job?" said Malenas.

The new facility, which will house about 250 recruits, will change all that, said Sgt. 1st Class Chris Adam, project engineer in the Tbilisi-based Georgia Project Office.

"We're building a whole new facility, with classrooms, auditorium space, a new gymnasium, and a dormitory so those officers training here have somewhere comfortable to



Georgia-based project engineers Sgt. 1st Class Chris Adam (left) and Charles Samuel (right) conduct quality assurance at the Dept. of State-funded police academy project in Tbilisi, Georgia – one of two projects in the city run by the embassy's International Narcotics and Law Enforcement Affairs program.



"If they're going to have a triál-by-jury system where people's lives and freedom are on the line, then the role that evidence plays in that jury system is really critical "

-Laura Malenas, INL program manager

sleep," said Adam.

Almost every day, Adam inspects the construction for quality, ensuring the contractor proceeds according to the schedule. Although the project suffered weather and redesign delays early on, it is on track to provide to the Georgians by the end of the year the most modern police academy in the Caucasus.

The school's curriculum will mirror that taught at the DOS-supported academies throughout the world, which, according to the INL's website, was established to professionalize policing forces; support democracy through the rule of law; enhance free markets; and increase social, political, and economic stability by combating organized crime.

"The bottom line is that the Georgians really need this facility," said Adam. "Police work cannot be onthe-job training."

Forensics lab

On the other side of Tbilisi stands a nine-story building that will soon house about half of the forensics bureau for the entire country.

Currently, the building is undergoing a \$1.22 million extreme makeover, including a new roof and exterior façade, a new heating and ventilation system, new electrical distribution

systems, and new doors, walls, ceilings, floors, and finishes.

"We're completely gutting the place," said Adam.

The renovations include all new laboratory and analysis areas, new storage rooms, two new elevators, and lots of office space, officials say.

And although the project has had major modifications and weather delays, Adam said it is also on track to be delivered by the end of the year.

"The customer and end-user are very happy with the progress so far," said Adam. "Which makes us happy."

The end result will be an effective and sustainable forensics lab that will help the Georgians apply modern scientific principles to criminal investigations and prosecutions.

Pistol range

The final project on tap is a \$400,000 covered pistol range in Tbilisi for the Georgian police force. This range, funded with excess funds from the police academy - will supplant an unheated, indoor four-lane range currently being used.

The current range, officials say, is unsafe, unheated, and is too small for an entire national police force to train in.

"It's a very strange range in my opinion," said Wayne Uhl, project





Before and after pictures of the Dept. of State-funded and Europe District-managed renovation project of the Georgian national forensics lab show apparent upgrades to the exterier. Other upgrades, totaled at \$1.22 million, include new roofing, walls, doors, ceilings, and floors as well as new heating, ventilation, and electrical systems. manager. "It's extremely long and narrow ... it has concrete beams down the lanes that you could easily have ricochets off of ... and it would probably only be good for sniper training. The range we'll work on will better suit their needs."

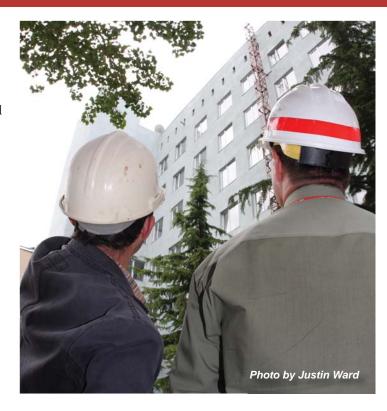
When the range is complete in late 2009, the Georgian police force will have a proper facility where they can learn to use their firearms effectively and safely, said Malenas.

Background

The U.S. government's major support for Georgia's institutional development started shortly after the "Rose Revolution" in 2003.

At that time, Mikhail Saakashvili was elected president. And as the former Minister of Justice under the government of President Shevardnadze, Saakashvili built up a vision for the future of law enforcement in the country and initiated major reforms in the area of forensics and law enforcement – including firing about 80 percent of the entire police force, which served as a political gesture that the culture of corruption would not be tolerated anymore.

"The Georgians are 100 percent committed to developing their law enforcement sector," said Malenas. "We would not undertake these



Sgt. 1st Class Chris Adam (right) discusses with the prime contractor the progress of renovation on the Tbilisi-based forensics lab project, valued at \$1.22 million and expected to be complete by the end of the year.

large investments in such a relatively small country if we did not think that the Georgian government would maintain it, would appreciate it, and would really use it and get good use out of it."

These buildings are manifestations of how the United States is supporting the larger law enforcement objectives, Malenas said, like developing their policing capabilities and "creating a culture of lawfulness within Georgia that, in Soviet times, only existed because people were afraid. And now it's more about the rule of law."

Anticipated future projects include the renovation of the police regional headquarters destroyed in the six-day war in August in the ill-fated town of Gori, just outside the hotly-contested South Ossetia region.

Only a few more months' construction are needed to complete the \$1.6 million, three-story police academy in Tbilisi, Georgia. When finished, this modern facility, which will include classrooms, auditorium space, a gymnasium, and a 250-person dorm, will replace an older, poorly heated facility.





BRAC in Israel: USACE helps Israeli Air Force move to the Negev Desert

Story by Justin Ward

Israel's first prime minister David Ben-Gurion believed the future of this new Jewish State lay in its sparsely populated Negev Desert. Here Israel could settle with minimal obstruction to the existing population and establish plans to make the desert, in Ben-Gurion's words, "bloom."

Moving the military was also part of this settlement vision; and in 2002 the Israeli Air Force (IAF) published their strategy to transfer their "mother base," collocated with the civilian airport near Tel Aviv, to Nevatim, a small town in the Negev.

The move would ease pressure the on the civilian airport's airspace and diminish the chance of mid-air accidents. It would also swap old buildings in a pricey neighborhood for new buildings in a low-cost area and provide hundreds of new jobs to those in a region best known for its high unemployment.

The move was termed one of the largest and most important military projects in the history of Israel. Not only would engineers place all new facilities where very little infrastructure previously existed, but many of these facilities would also be the biggest in the Middle East. Operational facilities had to support about 20,000 troops. The runway – at 2.5 miles, the longest in the Middle East – was to be the first in the country to support both fighter jets and transport aircraft. About 100 new buildings and 10 miles of new roads were planned.

"Every consultant the Air Force talked to was saying it's an impossible mission," said Ofer Davidi, Europe District's project

engineer managing the Corps' support to the IAF's move. "No one thought it could be done within the timeframe."

All told, the move would cost more than \$650 million – a significant share of Israel's military budget – not including future plans to build nearby training bases, transportation systems, education facilities, housing, and a gas-powered electricity station to handle the new load.

But, on August 27, despite the pessimism, the IAF unveiled for the first time their new installation, simply called "Nevatim," now the largest air base in Israel. It couldn't have been built without the U.S. Army Corps of Engineers.

Help in the form of U.S. engineers

Europe District's first support to the IAF's move started just after the 2002 announcement, when engineers at the Corps' Europe District accepted a project to construct a new \$15 million jet fuel system at Nevatim.

Other projects quickly followed, including a fast-paced \$18 million squadron contract in late 2006 to design and construct four squadron operation complexes, two hardened alert barracks, a control tower, and a fire station by the time the base opened in August 2008.

"This was the biggest thing that I've done in my career as an engineer," said Davidi, who estimated that the Corps supported about 20 percent of all new construction on base. "It was





ARMY ENGINEERS TO STAND UP NEW FIELD OFFICES IN POLAND AND CZECH REPUBLIC

Story by Justin Ward, Graphics by Missile Defense Agency

The U.S. Army Corps of Engineers Europe District has agreed to establish and staff two new resident offices in support of the U.S. Missile Defense Agency's (MDA) proposed ballistic defense system in Eastern Europe.

These offices, located on site in Poland and in the Czech Republic, would oversee the utility and heavy construction work necessary to install MDA's missile shield over most of Europe and northwest Africa, complementing an existing system covering the United States, Greenland, and Great Britain.

The District's support to the program – which could reach

almost \$850 million by 2013, when the last construction project is scheduled to complete – is significant for two reasons, said Doug Grant, chief of the District's International Engineering Center.

"Things like this don't happen every day. Or every decade," said Grant. "First, this could potentially be the single largest program the District has ever

system able to protect NATO members from missile attacks by "rogue states" such as Iran, which is expected to achieve Inter-Continental-Ballistic Missile capabilities by 2015. It would also prove itself as a non-proliferation tool that could devalue missiles and influence nations not to develop nuclear weapons.

For the Corps of Engineers, requirements could call for as many as 35 employees on these sites at once. However, the initial need is much less.

In Poland, Europe District aims to assign four employees starting in March 2009. The site will be called the "Northern

Area Office," and would ultimately be set up on site, at the Redzikowo airbase, a former passenger airport about 80 miles from Gdansk, near the town of Słupsk.

Engineers there will be tasked with finalizing the design and overseeing the construction of both "mission support" facilities – such as office space, barracks, and a

A graphic compares the dimensions of the proposed interceptor site in Poland to a standard soccer field.

Missile Field Width
40 Yards (37m)

Length:
120 Yards (110m)

Width:
80 Yards (75m)

undertaken at once. Secondly, and more significantly, this is the Army's first enduring presence in either Poland or the Czech Republic. And our engineers will be the vanguard party setting the scene for that to happen."

The decision was made after the foreign ministers of the Czech Republic and Poland signed basing agreements with Washington in July and August, respectively.

According to MDA, the end state is a missile defense

dining facility – for the U.S. and international Soldiers and Civilians to be stationed there and the "mission-essential" facilities – such as the belowground silos to house the 10 long-range interceptors to be deployed there.

In total, the Corps' work in Poland could total \$660 million.

In the Czech Republic, the District plans to station three personnel as of April 2009 in the tentatively-named Czech

Resident Office, ultimately to be located at the Brdy military training area – about 60 miles southwest of Prague – that was closed by the Czech army in 2004.

Here, blueprints call for engineers to design and construct the "mission support" and "mission essential" facilities to allow for the installation of an X-band radar and sensors currently operating in the Kwajalein Atoll in the Marshall Islands.

The radar, which is similar to those used at most airports, will not operate continuously, officials say, because it will rely on a mobile, forward-based radar to pinpoint or "cue" ballistic missiles after they are launched.

In total, the Corps' work in the Czech Republic could total \$176 million.

In late September, Congress authorized the full-scope of the planned construction for the sites, but reduced near-term funding to reflect what they called a "realistic" construction schedule.

Earlier in the year, all 26 NATO member states endorsed the plans; however, the parliaments in both nations must still approve the ratification for finalized plans to take effect.

"From both a professional and a personal stance, it's exciting to be involved in this project," said Grant. "It'll be a lot of work; but it's an important mission we can't turn our backs on."

Until construction starts in earnest at these sites, presumably sometime in fiscal year 2010, these personnel will oversee previously established contracts to develop statements of work, analyze the current site and living conditions, and conduct preliminary fieldwork on the sites.

Construction is expected to last until 2012 in the Czech Republic and 2013 in Poland.

Progress so far

Although a decision must still be made on the how much work Europe District will share with other engineering offices, including Huntsville U.S. Army Engineering and Support Center, which has previously worked with the MDA on this project, Europe District employees have already made substantial headway in both countries, ensuring placement of the new facilities is, indeed, possible.

"We've completed all of the geotechnical and environmental surveys that we were hired to do [in the Czech Republic]," said Wayne Uhl, project manager for the European Midcourse Radar. This, he stated, included about \$1.7 million in subsurface drilling, sampling, and analyzing soil and groundwater conditions.

The concurrent environmental surveys tested the area for levels of certain heavy metals, hydrocarbons, and petroleum products, Uhl said. "If someone spilled some diesel fuel there 20 years ago, we want to know that."

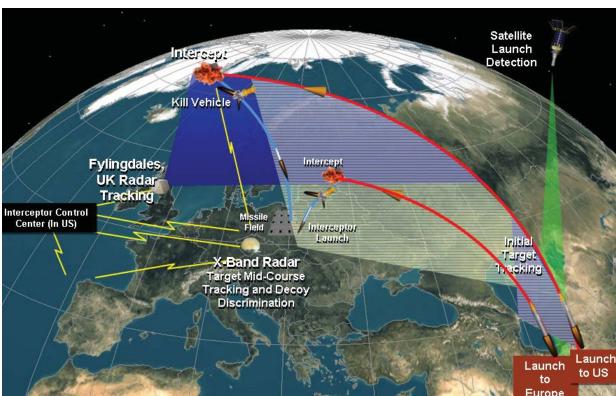
At the request of MDA, the District also performed a power options study, a topographical survey, a seismic investigation, and installed capped wells for future water testing.

In Poland, the District expects to complete by the end of the year similar surveys and analyses, valued at about \$4 million. This includes the examination of existing buildings and infrastructure as well as the installation of a production well.

Setting up shop

Pioneering the way into these new countries requires lots of logistical legwork, said Dale Free, the District's logistics chief.

First on his list is finding living quarters for the new staff.



A notional concept of how the European components of the U.S. Missile Defense Agency's missile shield would work shows how two potential launches from Iran could be thwarted.

"I expect to find decent apartment complexes near the sites that would allow us to lease a bunch of apartments for our guys to live in," said Free. "Another option would be to allow people to take it upon themselves to live on the economy, like they do here in Germany."

Other important first steps will be leasing temporary office space, shipping office equipment and stationery, securing proper medical support, and figuring out visa requirements.

"Everywhere we go we rely on host nation support for all our logistics functions," said Free. "And thankfully we worked out a lot of the bugs in terms of requirements and technical specifications through planning the set up of offices in Romania and Bulgaria. So now we're just repeating the process."

Free and his staff must also negotiate long-term vehicle contracts to provide employees with basic transportation to and from the work sites.

"Our best option is to get a lease through GSA [General Services Administration]; it supports our mission here – because if we don't maximize our vehicle usage, we have to get rid of them. But alternatively we could do a local lease contract." As the forerunners for future U.S. and international troops on the sites, Army engineers must also resolve the challenges of securing consistent Internet and cell phone connectivity, setting up satellites, and arranging a contract for IT support.

"As long as there are no obstructions, we can normally come in with a satellite solution," said Hal Moncrief, the District's information management chief. "We can get the bandwidth that we need that way and operate until MDA has got their communication system set up. And then we'll make a decision to either stay with what we have or piggy back on what they have."

Opposition

Numerous surveys in both countries bespeak an active resistance to the projects.

Opposition is fiercest in the Czech Republic, where Greenpeace activists camped out for six weeks on a patch of land in the Brdy complex to protest the installation of the radar. Local citizens are stated to worry about health scares from the radar; however MDA says it poses no threat to the public because the narrow radar beam it emits is significantly elevated from the ground.

It has operated in the Marshall Islands for over a decade without any harmful effects to the people in the nearby family housing area or the children in the nearby school.

The opposition, however, has not impacted the enthusiasm of the local contractors.

"The Czech people who are assigned to us are very, very helpful," said Uhl. "The only people who are negative are the demonstrators."

Further resistance comes from Moscow, which has consistently opposed plans for the sites, stating the shield would threaten Russia's national interests. Shortly after the agreement between Washington and Warsaw was inked, Russia threatened an "adequate" response, including perhaps placing missiles in neighboring Belarus, a strong ally of Russia.

"Our security posture is to monitor the situation closely to ensure our engineers and project managers on these sites in Eastern Europe are kept safe," said Capt. Sean Hurst, the District's intelligence officer. "Any action by any nation to incite hostilities against Americans – whether real or to simply garner media attention – will be taken seriously. They have to be."





Left: Kwajalein Atoll in the Marshall Islands is the current home to the radar (pictured above) that would be moved to the Brdy military training area near Prague. Despite fears from the Czech populace, MDA says the radar beam it emits poses no health threat to the public.

NAU UpClose Short engineering stories from around the district



District Advances Minorities Interest in Engineering

Every summer, Europe District experiences a "true win-win," when minority engineering students enrolled in the AMIE (Advancing Minorities' Interest in Engineering) program work at the District: The students solidify their academic knowledge while working on interesing projects in Europe. And the Corps gets cheap, hard-working employees.

This summer, two Morgan State University students worked on valuable projects in Grafenwoehr, Stuttgart, and Landstuhl.

"You're in another country with a different culture and a language barrier," said Tiffany Moore, an electrical engineering major who worked in the environmental branch. "I'm having a great time learning about what the Corps does."

Joshua Amory-Moody, a civil engineering major, worked in project management on a few playground and child development center projects.

"I got here and got to jump right in," Amory-Moody said. "It's been fun. You have all the technical stuff - micro stations, different packets, activities - and sightseeing of course is a lot of fun. Go to Paris. Go to Rome. So it's pretty nice."

The AMIE partnership with the Corps of Engineers actually started in Europe, said Elaine Lawson, the District program manager who championed the program from Europe in 1994 and

is now back again to do the same. Since then, it has become the program model for all of the Corps of Engineers.

"Some students are now working with the Corps of Engineers as full-time, permanent employees," said Lawson.

Although Moore and Amory-Moody said they are relishing every moment of their experience, Lawson said the District is doing the same.

"We get top notch summer students working for us and as students they can give us there new ideas and energize our normal workforce. It's a true win-win."



Reaching back to help Iraq



Four Europe District engineers spent two weeks in northern Iraq recently in support of a Transatlantic Programs Center (TAC) request to conduct design charrettes for several military construction projects on Joint Base Balad and Camp Speicher.

Their duties included forecasting engineering and cost requirements for several administrative and operational buildings, a road-widening project, a water storage project, a well, and two fueling facilities.

"Europe District did something similar in Afghanistan last year, and I guess they really liked what we did; so they came back

to us," said cost engineer Will Dailey, part of the deployed team. "Our district is fairly active with military construction, and we're not far from the theater of operations. Plus we can do our own in-processing and fly directly there to complete the mission. So it's a lot easier for [TÂC] to rely on us."

On the team with Dailey were John Wutzer, Tony Korves, and Carlos Montoya. It was the first time for each of them in Iraq.

"I was surprised at the non-[combat] action," Dailey said. "They used to call the area Mortaritaville. But there really was no mortaring when we were there."

Austere Challenge - NAU is part of the equation

 \mathbf{I}^{n} this spring's Austere Challenge exercise, units such as USAREUR, V Corps, 21st Theater Support Command, and the 5th Signal Command tested their ability to integrate into a single, functional staff notionally under the umbrella of the DoD's new 7th Army. But when that staff deployed, they needed to rely on other Europe-based units, including the U.S. Army Corps of Engineers, to perform at its peak.

According to District officials who coordinated the Corps' operations in that "deployment," the integration of Army engineers into this massive exercise was a success.

"It was a great experience for them and it gave us an opportunity to show off what we can do for the 7th Army and USAREUR task force," said Ray Langdale, operations officer for Europe District.

The Corps was called on to fix problems damaged oil fields, sewage lines, electrical systems, roads, canal locks and dredging systems.

Getting involved was difficult, Langdale said, since most uniformed participants are unfamiliar with nonmilitary partners - like the civilian-heavy Corps of Engineers. Langdale likened it to a singer coming onstage without having rehearsed with the backup singers.

"We aren't in a situation where we have to go," Langdale said. "And a lot of times we wouldn't get called because we are an afterthought. But the more we interact in these exercises, the more they expect us to be there. And that's what we want."

Six reservists formed the Corps' team. Aboard the USS Mount Whitney in the Persian Gulf were Lt. Col. Thomas Hanniff and Capt. Lamarr Mayo. At the Grafenwoehr Training Area were Maj. James Roche and Master Sgt. Chad Henry. And overseeing the Corps' participation at the District headquarters were Lt. Col. Andy Calkins and Maj. Aaron Eklund.

Despite being dispersed in three different locations, the Corps was able to demonstrate its value by handling all the issues in a timely and professional manner, said Langdale.

The Corps plans to participate in Austere Challenge for the next four or five years. Next year, Langdale hopes to expand the operation to have "people go out and do real assessments," Langdale said. "A bridge assessment in the area would add greatly to the current notional exercises."

