



THE

# **FREEDOM BUILDER**

April 2010

**MAGAZINE**



## **Undercover**

**Kevin Lynch goes undercover to help  
FBI bust corruption in Afghanistan**

## **Watershed**

**Corps of Engineers assesses ways  
to bring water to Afghan people**

## **Assisting locals**

**Engineers in remote provincial reconstruction  
team help to assist locals**

## **NMAA Graduates**

**Afghan lieutenants graduated from engineering  
internship.**



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## Cover Image:



**Kevin Lynch helps FBI bust corruption in Afghanistan.**  
(Full story on pg. 4)

Photo by | David Salazar



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# The Wire

Corps official goes undercover, helps FBI bust corruption in Afghanistan

Story by | Paul GIBLIN

Photo by | F.T. EYRE

Secretary of the Army John McHugh, left, awards Kevin Lynch the Army's top award for civilians, as the Vice Chief of Staff of the Army Gen. Peter W. Chiarelli and Under Secretary of the Army Dr. Joseph Westphal watch.

**K**ABUL, Afghanistan – Army Corps of Engineers contract administration specialist Kevin Lynch, who became suspicious of a bogus re-imbusement request by a Lebanese construction company, worked undercover with the FBI for months to expose a multi-million-dollar bribery and corruption scheme.

His clandestine work led to the arrests and convictions of former Corps of Engineers contract administrator Gloria Martinez; her sister Dinorah Cobos, who served as an executive with the Lebanese-based military construction firm Sima Salazar Group; and Raymond Azar, who was the president of Sima Salazar.

The sting operation in Kabul thwarted one of the largest procurement fraud schemes ever

perpetrated against the Corps of Engineers, the branch of the Army that's building infrastructure projects in Afghanistan.

Yet Lynch's role was never publically disclosed until this month when he received the highest award the Army gives to civilians. Secretary of the Army John McHugh awarded him the Decoration for Exceptional Civilian Service at the Pentagon in Arlington, Va., on April 14.

"His actions will serve as a strong deterrent to others who might attempt contracting fraud," the commander of the Corps of Engineers, Lt. Gen. Robert L. Van Antwerp Jr., wrote in a letter nominating Lynch for the award.

Martinez, Cobos and Azar all were sentenced to prison in the United States in

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**“His actions will serve as a strong deterrent to others who might attempt contracting fraud.”**

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the case that involved construction projects in both Afghanistan and Iraq. Martinez and Cobos are U.S. citizens, while Azar is a Lebanese citizen. The three conspired to trade jobs, money, jewelry, housing and other gifts for favorable treatment in contract matters.

The scheme unraveled because Lynch, whom the conspirators believed to be their newest recruit, wore a wire for the FBI.

“A number of us have the view that the case would have never come together and never have been prosecuted had it not been for Kevin's role in it,” said Dale Holmes, former legal counsel for the Corps' district office in northern Afghanistan.

## Lynch takes anonymous role

Lynch and the federal agents conducted the sting at the Corps of Engineers' district headquarters in northern Afghanistan largely without the knowledge of Lynch's colleagues at the Qalaa House compound in Kabul.

Furthermore, federal prosecutors referred to Lynch only as “Person One” in public court documents, and Lynch himself didn't publicly discuss the matter.

FBI agents had been investigating Sima Salazar, its affiliated companies, Martinez and Cobos since August 2007, but the agents lacked enough evidence to arrest the sisters, according to documents written in support of Lynch's award. FBI agents declined comment.

By December 2007, Martinez had retired from a 26-year career with the Corps of Engineers, a stint during which she had served as chief of contracting in Afghanistan for a year, and as the chief of contracting in Iraq for two years. During her tenure, the Corps of Engineers awarded Sima Salazar and its affiliated companies at least \$155 million in construction contracts in Afghanistan and Iraq, but none before or after.

The scheme worked this way: Martinez gave her sister inside information about up-coming bids, assuring Sima Salazar would win several competitive contracts. On the occasions when the company failed to

perform some of its work and the Corps of Engineers canceled its contracts, Martinez made sure Sima Salazar received generous settlements and that the company wasn't black-listed from future bids.

In return, Azar showered the sisters with jewelry and shopping bags filled with cash. He also gave Cobos lucrative jobs, private school tuition for her children, and a luxury condo in Dubai, United Arab Emirates. The sisters pocketed more than \$400,000 in cash and gifts, according to court documents.

At the time, Corps of Engineers personnel were unaware that Martinez and Cobos were related.

For a while, Martinez and Lynch worked together in the contracting department in Kabul, where billions of dollars in war-zone contracts are awarded each year to U.S. and foreign companies to build infrastructure projects, such as army bases, police stations and roads.

“I worked with her very closely, actually,” Lynch said. “I really liked her professionally at the time.”

His job involved managing contracts, and negotiating settlements on claims submitted by contractors when the scope or conditions of their contracts had changed. Martinez appeared to value his work and she nearly always followed his recommendations, he said.

His participation in the sting began simply enough.

About a year after Martinez retired from the Corps of Engineers, Sima Salazar submitted six claims. Company officials sought \$13.5 million in compensation to pay for unexpected security expenses, the cost of rebuilding a road that had been damaged by rain, the outlay for completing additional work beyond the scope of its contracts, and other matters.

“I started digging into these things. As a negotiator on behalf of the government, my first instinct was that they're all bogus,” said Lynch, 32. “These claims appeared to be outrageous – and impossible, frankly – in some cases.”

One claim in particular stood out. It



Photo by | Joe Marek

Kevin Lynch visits a training room on the Qalaa House compound where he met with Dinorah Cobos during the sting operation.

involved a section of road that Sima Salazar had agreed to build. Lynch knew from weekly briefings that the project was an unmitigated disaster.

The company hadn't laid an inch of pavement and was nowhere close to being ready to begin work. Corps of Engineers personnel had lost faith that Sima Salazar could complete the job, and had asked the company's executives to propose a settlement for eliminating the road from their contract.

He expected the executives to request reimbursements for, perhaps, some design work and administrative expenses. Small stuff.

"It came back at \$2 million and it was very strongly worded. We spent \$2 million on this, and if you want to take it away from us, that's what it's going to cost you. Oh, and by the way, we're racking up costs of \$20,000 a day for every day until you make a decision on this," Lynch recalled.

"It was really absurd. That \$2 million represented 50 percent of the cost of that road – and they hadn't even started on it. From a claims standpoint, it was really outrageous. It just got my blood boiling," he said.

Lynch tried to reach Sima Salazar executives to discuss the inflated figure. Everyone he contacted referred him to the company's new Afghanistan manager, whom, they said, was the only person authorized to discuss the issue.

That executive was Cobos. Eventually, Lynch reached her by e-mail. She responded that she'd be happy to meet with him. In fact, she couldn't wait. However, she was traveling for the Christmas holidays, so she couldn't for two weeks. They agreed to meet when she returned.

"It's funny, because none of this may have happened if she had not been on vacation at the time," Lynch said. "Literally, there were probably 20 pounds of folders that these claims consisted of. And they were sitting on my desk. Already I was not happy with them, and I was just staring at them day after day."

### Lynch finds discrepancies

He read through the documents and discovered a list of expenses supposedly compiled by one of Sima Salazar's sub-contractors related to the unbuilt road. The document listed debts for equipment and materials, plus expenses for laborers and security personnel, which seemed incredible since construction hadn't started.

There was another quirk: The sub-contractors letterhead appeared to have been pasted on the body of the document. Lynch called a phone number on the letterhead.

"The guy I talked to could not even figure out what I was talking about," Lynch said. "When I finally got through to him what I was talking about and the specific piece of road that I was talking about, he started laughing. He said, 'We have never been there. You can't even get there. The bridge is washed out. You're crazy. What are you talking about?'"

Lynch e-mailed a copy of the document to him. Within an hour, the president of the company sent a return e-mail. He only used broken English, but he use the word "fake." The man made it clear that the document did not originate from his company, and he requested an immediate meeting with Lynch to determine the true source of the forged

paperwork.

At that point, Lynch knew he had enough evidence to show that Sima Salazar executives were trying to bilk the U.S. government. "I said to myself, 'Finally, I got one of these guys!' You're always suspicious. That's how it's supposed to be," said Lynch, a Kansas resident and Corps of Engineers employee since 2003. "This was fraud and it was big. It was over \$1 million."

He reported his findings to Holmes, the legal counsel at the time, and together they notified officials at the U.S. Embassy and the FBI, which already had an anti-fraud task force in place. They briefed two federal agents at the Qalaa House compound, and after reviewing Lynch's findings, the agents concluded that an audit, rather than an investigation, would be the best way to proceed, Lynch said.

Lynch returned to his office and requested an audit.

### FBI takes another look

Two or three weeks later, one of the FBI agents contacted him to request a second meeting, just to ensure that they hadn't missed anything the first time. They met at the U.S. Embassy and Lynch retold his story.

"The only difference that I could think of was that for some reason I mentioned the name of the woman I was supposed to be negotiating with when she gets back in the country," Lynch said.

"I gave them the name Dinorah Cobos."

The agents stared at each other, then at him, that at each another again. Lynch asked them if they knew something about his new contact. In fact, they knew quite a bit about her. They told him that the FBI had spent 2½ years investigating her involvement in a far-reaching fraud and bribery scheme, but that they hadn't come up with enough hard evidence to arrest her.

"Within about five minutes, they said, 'This changes

everything. We're not exactly sure how this is all going to play out, but we're probably going to ask you to wear a wire and set you up to take a bribe,'" Lynch recalled. "I said, 'What? Are you serious? What the heck is going on?'"

A few days later, the federal agents told Lynch that his former colleague, Martinez, and Cobos were sisters and that they believed Martinez was involved in the scheme. Furthermore, the agents told him they had reason to believe that Cobos would try to bribe him.

Suddenly, a number of business transactions during Martinez's tenure at the Corps of Engineers made more sense, Lynch said.

For example, Sima Salazar, which had never before done any reconstruction business in Afghanistan, emerged on the scene in 2007 and submitted textbook perfect proposals for projects. The company's proposals were so good, Lynch said, it was as if company executives had access to the Corps of Engineers' evaluation criteria when they prepared the proposals.

Yet after winning a number of contracts and instantly becoming one of the biggest contractors in the theater, Sima Salazar failed to deliver on many of its projects, including several high-profile construction jobs. The company didn't have the proper management in place. In some locations, its



Photo by | Paul Giblin

FBI agents arrested Dinorah Cobos and Raymond Azar at the Green Beans Coffee shop at Camp Eggers on April 7, 2009.

workforce was non-existent. Sima Salazar couldn't even begin some jobs.

Lynch, as part of his duties, looked into the matters and recommended terminating the stalled contracts for default. Martinez appeared to consider his recommendations, but rejected them, stating that the Corps of Engineers was partly responsible for awarding more work than the company could handle.

Instead of terminating the contracts for default, she instructed Corps of Engineers personnel to negotiate terminations for convenience, which was a far more lucrative arrangement for Sima Salazar. Lynch said he raised some concerns about the settlement package, but Martinez countered that it looked appropriate to her. She said she would order audits to ensure that her reasoning was correct. Lynch never heard about the audits again.

He agreed to wear a wire.

### Sting operation starts

The FBI agents instructed Lynch to meet with Cobos as he had previously scheduled. They showed him how to wear a hidden recording device for personal meetings and how to tape phone calls. They also told him they were monitoring his e-mail correspondence with Cobos.

The agents asked him to try to convey four messages – he had more authority than his job title suggested, he was upset with his supervisors, he was preparing to leave the Corps of Engineers, and that he was broke. Beyond that, they instructed him not to suggest a bribe; Cobos had to introduce that topic.

The financial hardship part of the discussion was easy, Lynch said, because he had recently taken a hit in the stock market. The rest of it made him nervous.

“The first two meetings that I had with her did not go well from a criminal-investigation

perspective, because I just fell right back into my old comfortable routine of arguing with every single point in their proposal,” he said.

“I knew that that was not what I was supposed to be doing, but it would be weird if I just stopped and changed topics all of a sudden. Really, the first couple of meetings were pretty disastrous. I mean, I was just negotiating hard like I tend to do. I didn't know how to initiate that conversation,” he said.

The FBI agents closely monitored his interactions with Cobos. They urged him to keep meeting with her and to express to her that he was dissatisfied with his job and irritated by his bosses. They suggested he mention that he did the bulk of the difficult work in his department, but that his supervisors unfairly took the credit. He continued to meet with her, usually somewhere on the Qalaa House compound. Tape ran every time.

“I'll tell you what – by the end of this thing, it was like I was living a separate life when I was talking to her,” Lynch said. “I got good at it. I could lie easily. And that's what they said, those agents. I was like, ‘What if she says this? What if she says that?’ All they ever could say was, ‘Go with it, man! There's no rules here – well, there's a few rules; you can't entrap – outside of that, you can lie.’”

Lynch made a breakthrough during a meeting when he proclaimed that he planned to leave the Corps of Engineers to seek work at a private construction company, perhaps even a company like Sima Salazar.

From that point, Cobos seemed more comfortable with him. Their meetings, which previously had been heated negotiations, became warmer and friendlier, Lynch said. There seemed to be acceptance that someday they would work together.



More than three months after Lynch had begun to wear a wire, the FBI agents believed Cobos was close to suggesting criminal activity, Lynch said. Cobos had been in Lebanon and e-mailed Lynch to ask if she could bring him a bottle of wine, a box of candy or some other gift. “They're like, ‘This is how it starts. This is good,’” Lynch said.

### Cobos intrudes new player

When she returned to Afghanistan, Cobos told Lynch that Azar, the company president, wanted to meet him at their next meeting. She said Azar planned only to greet him briefly, then hustle off to another

Azar pulled out his wallet and showed Lynch a photo of his four children, insisting that they were depending on him. Azar said he envisioned creating a second company and making Lynch a shareholder. Then he left.

Cobos and Lynch continued the meeting for two or three hours.

They agreed that most of the money Sima Salazar was seeking was bogus. “I basically said, ‘I can make this happen. There are probably \$1 million or \$2 million or \$3 million worth of legitimate claims here, but not \$13 million, but I can make it \$13 million, but I don't know why I would. Why should I?’” Lynch said.

DEPARTMENT OF THE ARMY  
DECORATION FOR EXCEPTIONAL CIVILIAN SERVICE  
KEVIN D. LYNCH  
Citation For Decoration for Exceptional Civilian Service

HAS RECEIVED OFFICIAL COMMENDATION FOR EXCEPTIONAL PERFORMANCE OF DUTY from January 2009 to September 2009 while assigned as Chief – Contract Administration Branch, Afghanistan Engineer District. During this period, Mr. Lynch played the key role in uncovering and providing critical evidence leading to the successful prosecution of one of the largest procurement fraud schemes ever perpetrated against the United States Army Corps of Engineers. Mr. Lynch's outstanding performance of duty and dedication to mission accomplishment are in keeping with the finest traditions of civilian service and reflect great credit upon him, the U.S. Army Corps of Engineers and the United States Army.

meeting outside of the Corps of Engineers' compound. Lynch figured Azar wanted to check him out personally.

Lynch scheduled the meeting for Feb. 22, 2009, in a secluded training room.

“This guy, the president, he was the politician type – all smiles and BS and handshakes. They gave me the bottle of wine. They gave me the box of truffles. He gave me a big fat Cuban cigar,” Lynch said.

“He was shaking my hand and patting me on the back and was basically telling me, ‘Listen Kevin, what do you want me to do? We underbid these jobs. We're in some trouble here. We need a lifeline and you're the man, you're going to save us,’” he said.

Cobos didn't speak. Instead, she drew a large dollar sign next to a blank line on a sheet of paper. She slid the paper across the table. A camera hidden in an overhead smoke detector recorded it all.

They discussed the details of the arrangements. They agreed that Lynch would collect kickbacks totaling 1½ percent of any payments he got approved on the bogus claims. In the meantime, she said, the company would delay work on other contracts, including an Afghanistan National Army commando facility, until the fraudulent claims were paid.

Cobos encouraged him to set up a bank account in Dubai, and left the meeting

telling Lynch that she would tell Azar about their arrangement.

The next day, she e-mailed him details about the agreed-upon kickback formula, crudely camouflaged as a recipe for a cocktail. Still, the FBI agents wanted more. They wanted Sima Salazar to actually give Lynch a bribe.

They quashed the idea of setting up a bank account in Dubai because of jurisdictional concerns. Instead, they opened a bank account in the town of Manassas, Va., and concocted a story that it belonged to Lynch's cousin, who supposedly owned a lawn equipment company.

Initially, Cobos balked at the idea, fearing a transfer to the Virginia account could be traced. She told Lynch she would give him a suitcase full of cash if he could get to Dubai, but he told her that his boss wouldn't let him leave the Corps of Engineers district headquarters in Kabul. Lynch even cancelled a scheduled three-week vacation to Kansas to support the story.

They appeared to be an impasse.

### **Sima Salazar makes payoffs**

"I had to start getting aggressive – aggressive in a criminal way – which was unusual, because I had to start saying things like, 'This is not going forward any more until I start getting paid, until I start getting money,'" Lynch said. "It was just weird. It was just me being a different person."

Finally, money appeared in the Virginia account. First, \$16,947 on March 10, according to federal court documents filed in Alexandria, Va. Then \$39,955 on March 25, and \$49,985 on April 6. The total: \$106,887.

In exchange, Lynch gave Cobos a document stating that Sima Salazar was due millions of dollars, to be paid when the funding became available a few weeks later. The document was bogus, of course.

Lynch set up a final meeting for April 7.

At the time, the Corps of Engineers' district commander Col. Thomas E. O'Donovan had been calling in contractors for one-on-one conferences that he termed "partnering meetings." Lynch warned Cobos that O'Donovan would demand explanations

for Sima Salazar's impressive list of misfortunes.

However, Lynch said, if Cobos and Azar met with him before the partnering meeting, he would instruct them how to dodge O'Donovan's wrath. They agreed to meet at the Green Beans Coffee shop at Camp Eggers, a large multi-national military base across the street from the Corps of Engineers' compound in downtown Kabul.

But Lynch never showed up.

Instead, a team of FBI agents waited inside the coffee shop and cuffed Cobos and Azar the moment they walked through the front door, according to court documents. The agents whisked them to Bagram Airfield and to a jet that typically is used by the head of the FBI. With the authorization of Afghan authorities, they flew Cobos and Azar to the United States to be indicted.

Authorities later served search warrants on Martinez's home in Gretna, La., and arrested her, too. All three defendants filed guilty pleas, Cobos and Azar in U.S. District Court in Alexandria, and Martinez in U.S. District Court in New Orleans. Sima Salazar's attorneys filed a corporate guilty plea in Alexandria.

"Kevin is essentially the hero of all this stuff. The dude was under cover, wore the wire for 3½ months and just played this beautifully," Holmes said. The attorney noted that the FBI offered to put Lynch in the Witness Protection Program, for fear of Middle Eastern-style retaliation, but he declined.

Martinez was sentenced to five years in prison and ordered to forfeit to the government \$62,000 and 16 pieces of jewelry, including a Rolex watch valued at more than \$25,000. She was 61 years old when she was sentenced on Jan. 28 of this year.

Cobos got two years in prison when she was sentenced on Nov. 20, 2009. She was 52.

Azar got six months on Nov. 13. He was 45.

Sima Salazar was fined more than \$650,000, all its contracts were cancelled and it was banned from bidding for future work.

Lynch went back to work in his contract

administration job. In November 2009, he suffered appendicitis and underwent emergency surgery. He returned to the United States to recover, but has since resumed his position in Afghanistan.

Lynch said he believes he made the right decision when he agreed to go undercover to help crack the conspiracy, but the sting operation developed so quickly, he didn't give it much forethought. The pressure, he said, was daunting. And he was relieved when it came to an end.

### **Generals extol Lynch's work**

Van Antwerp commended Lynch for willingly accepting the assignment at great personal risk and for gathering evidence that was so complete the defendants opted to forego their right to public trials. "Mr. Lynch demonstrated exceptional maturity, great courage and personal integrity of the highest level," the general wrote in his nominating letter.

In hindsight, Lynch feels some level of sorrow for his former colleague.

"I'm not a trained law enforcement officer. There's definitely a human side of me that

doesn't want to see a 60-year-old woman go to prison for five years. That's pretty scary," he said.

"I'm not a hard-core guy. It's too bad. I mean, the whole thing is a tragedy that they committed a crime in the first place, and that their lives and their careers and all that are going to be tainted by this stupid thing," he said.

Lynch believes that the huge amounts of money, the go-go-go attitude and high turn-over rate of personnel in the war-zone environment created the circumstances for a crime of opportunity. He wonders if Martinez would have made similar decisions if she had finished her award-winning career somewhere in the United States in a more typical work setting.

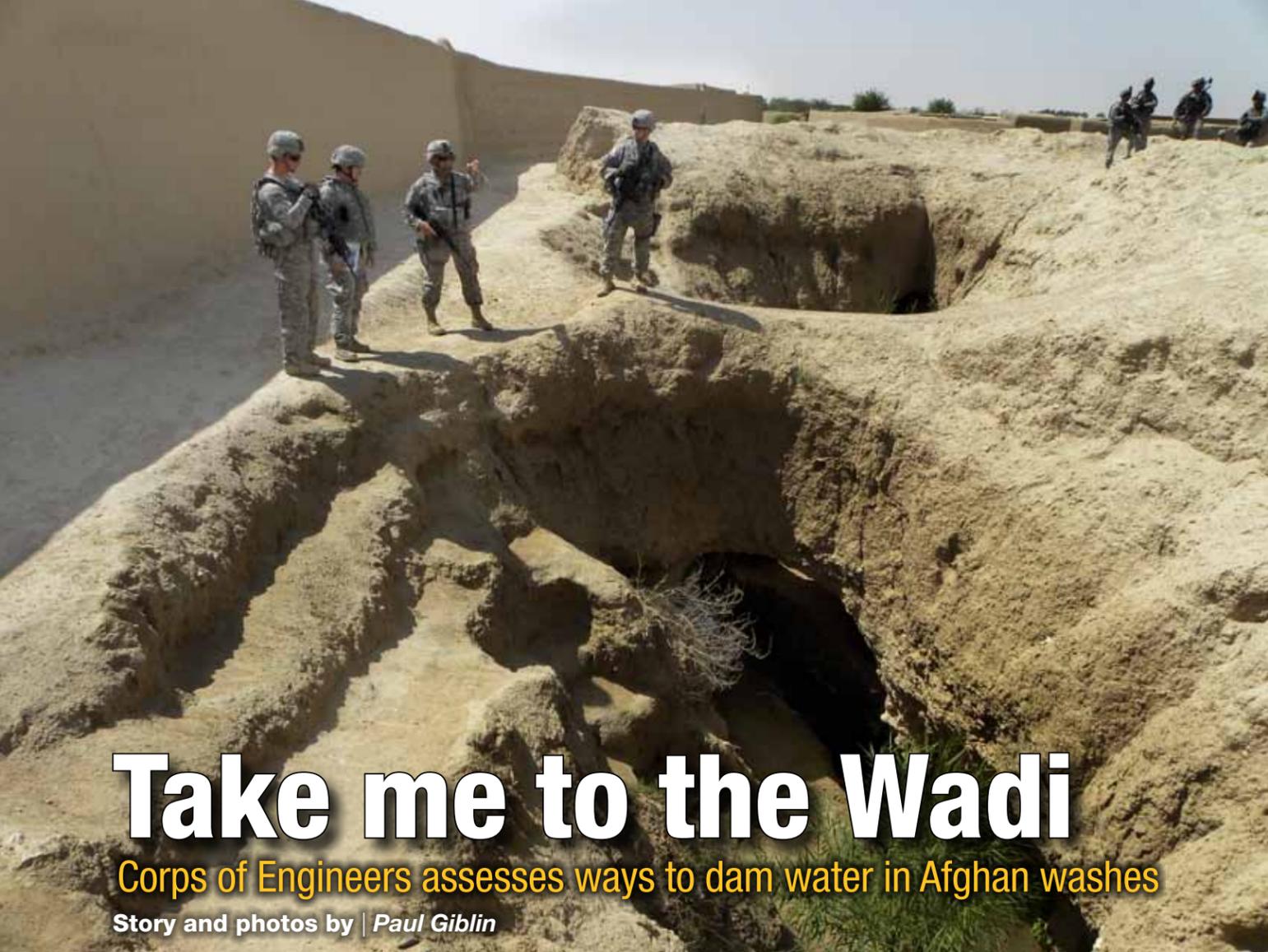
"It's important for people to know that eventually, somebody's going to be looking into all of these transactions," Lynch said.

"At the time, it seems like there's no oversight and the arrests aren't made until years after the fact, but this is not the wild, wild West. We still need to be good people, even when we're in a bad place," he said. 📷



Photo by | Joe Marek

Col. Michael McCormick, left, congratulates Kevin Lynch during an all-house meeting at the Qalaa House compound in Kabul on April 19, 2010, after Lynch returned from Arlington, Va.



# Take me to the Wadi

Corps of Engineers assesses ways to dam water in Afghan washes

Story and photos by | Paul Giblin

Army 1st Lt. Joseph Cooper, from left, Corps of Engineers hydraulic engineer Bill Doan, Col. Gordon David and Capt. William Easter mull the potential effect of a dam on a nearby riverbed to an underground water canal.

**H**UTAL, Afghanistan – Hydraulic engineer Bill Doan noted the tell-tale signs of water hidden all around him while walking a three-mile foot patrol with 15 Soldiers in the arid southern region of the country on March 28.

Doan and the Soldiers stationed at Combat Outpost Rath marched from the village of Hutsal across the dry Luy Mandeh River, a quarter-mile wide swath of sand and rocks, where water hadn't run in months. They passed a recently built retention dam constructed of rock-filled containers that typically are used for blast walls.

Midway across the riverbed, which is called a wadi, the platoon came across four men shoveling sand into trailer hooked to a tractor.

On the far side, they hiked upstream where the riverbed divided in two. Next to the smaller of the two riverbeds, they came upon a line of open pits denoting an ancient, but functional, underground water distribution channel called a karez.

Beyond that, Doan and the Soldiers encountered a couple of farmers tending irrigated fields of wheat and opium poppies, a flowering plant that's used to make heroin, which is Afghanistan's most profitable export.

U.S. officials hope to convince farmers in the region to switch from poppies to other crops, such as cotton, apricots, almonds and pomegranates, but those crops need far more water than poppies and water has been becoming increasingly scarce in the village of

Hutsal and the surrounding area.

Doan toured the site to assess whether – and how fast – the U.S. Army Corps of Engineers could design and build a dam or a series of dams in the region.

Corps of Engineers personnel in Afghanistan and at five different offices in the United States are coordinating efforts to conduct a comprehensive watershed study for southern and eastern Afghanistan, the most arid regions of the country. The goal of the \$5.5 million study is to identify places to build dams and other water infrastructure projects.

“This is a perfect textbook example of the military strategy of clear, hold, build and transfer,” Doan said. “This is the ‘build’ component of it.”

Most of the work is being done using 3-D satellite mapping technology and geographic information systems, but Doan went to see Hutsal at the request of Col. Gordon David, the civil affairs team leader at Rath, who believes a dam could help recharge the groundwater in the region.

“Instead of waiting for a year for all the assessments to get done, if it's obvious that this is a really, really good site, we can immediately get into the survey and design phase,” said Doan, who's stationed at the U.S. Embassy in Kabul, 285 miles northeast of Hutsal.

Hydrologists in the Wilmington, N.C., office completed the first phase of the study in October 2009. Similarly, hydrologists in four other regional offices are examining conditions in 16 additional provinces.

The second phase began early this year and is expected to be complete in about a year.

Hydrologists in Omaha, Neb., are examining Afghanistan's far southeastern provinces; while Mobile, Ala., has the central provinces; Fort Worth, Texas, has the northeast provinces; and the Hydraulic Engineering Center in Davis, Calif., has the southwest and south central provinces.

“Our reach-back teams are actually doing the hardcore engineering work,” Doan said referring to his counterparts in the United States. “They have some really good, high-



An Afghan farmer tends his crop of flowering poppy plants in an irrigated field near Hutsal in southern Afghanistan.



**A temporary dam stretches across the Luy Mandeh River.**

quality GIS data and they can actually build 3-D terrain models and can look at it and say, “Wow. That would be a good location for a dam right here.”

Hydraulic engineers in the United States are considering a number of factors to identify potential sites, said Paul Ocker, chief of the Infrastructure and Planning Branch at the Corps of Engineers’ headquarters north Afghanistan district in Kabul.

“They are going to look at a whole bunch of dam sites, and based on the economics of it, the need for agriculture in the area, on the sediment loads, on how much water we might be able to divert or store, based on all those factors, we’ll decide where we design and eventually build small irrigation dams, water-supply dams and micro-hydro types of dams,” Ocker said.

After the study is complete, the recommendations will be forwarded to the Corps of Engineers’ two district headquarters in Afghanistan – Kabul in the north, and Kandahar in the south – to oversee the design and construction of potential projects.

There’s plenty of possibilities. The first phase of the study examined just six provinces – Khost, Paktya, Logar, Wardack, Ghazni and Paktika. Together, they’re 40,842 square miles, approximately the size of Kentucky.

Hydraulic engineers initially identified 185 prospective dam sites in the region, Ocker said. Corps of Engineers personnel then

selected the top 15 sites, and then to the top five. Afghanistan has 34 provinces.

Officials expect that new dams will help Afghanistan rebuild its agricultural industry after three decades of war. The agriculture sector is a critical component of the country’s economy, because approximately 80 percent of the country’s workforce is involved in the trade, according to the 2010 CIA World Factbook, which compiles statistics on countries worldwide.

The dams also can be used for hydro-power plants and to recharge groundwater supplies, said John Heitstuman, an engineer in the

Kabul office.

Dam construction has four major components. In order: Restoring upstream watersheds to prevent erosion; designing and building dams; installing new downstream infrastructure systems such as headgates and canals to deliver water to farmers and other users; and finally, teaching the locals the value of land management and how to operate dams.

“Building the dam probably is the easiest part,” Doan said.

Dams in Afghanistan are notorious for failing because of heavy sediment that piles up behind them, filling reservoirs intended to hold water, he said. The area around Huta, like vast stretches throughout Afghanistan, is barren, at least in part, because of unregulated clear-cutting and overgrazing, which leads to erosion.

Ideally, a re-vegetation process using native trees, bushes and grasses would begin well before construction of a dam. “We’d let everything establish for one year, then actually build the dam. While the vegetation grows, it would hold back the sediment so that our dam doesn’t fill up within a couple years,” Doan said.

David envisions addressing a number of issues with a new permanent dam across the Luy Mandeh. The most important goal is recharging the underground water table by capturing flood water that runs eight feet deep during spring rains. Without a dam, the river

swells during storms, but empties within a day or two with little effect on the water table.

“The long term benefit is to raise the water level after years of drought,” David said. “A lot of the wells are dry. The water table has fallen and we’re hoping that when the water does run down the wadi, it gets caught and stays a little longer to raise the water table. Half the wells are dry.”

As recently as four years ago, people who live in the area were able to draw water from wells that were 30 yards deep, they said. Now, they must dig 50 or 60 yards before reaching water.

Additionally, David said, construction of a permanent dam would provide both short-term and long-term employment in the region, which has a population of about 30,000.

“These guys are about 80 percent unemployed, so they’re constantly asking us for jobs,” he said. “There’s no other way to make money, other than nickels and dimes out of the poppy trade or maybe an uncle has a shop at the bazaar,” David said.

A dam would create immediate construction jobs, plus improve conditions for stable farming

jobs, he said.

The Army paid about 90 local workers \$6 each a day for three months to build the current retention dam using Hesco brand containers, which are made with metal and plastic mesh sidings, and are filled with sand and rocks. The workers dug the containers about three feet deep into the river bed. The barriers stand about five feet high.

The dam has been untested, because no rain has fallen since its completion earlier this year.

Doan noted other possible complications concerning a potential permanent dam across the Luy Mandeh – the impact on a cemetery and several existing houses constructed of mud along the river’s banks, the effect on several karez channels in the area, and the potential for destructive overflows during flash floods.

In the end, Doan recommended a two-pronged approach – reinforcing the container check dam to reduce seepage between the individual containers and to prevent the containers from toppling; and designing and building a permanent dam. 📷

**The temporary dam near the village of Huta is made of earth-filled containers usually used to make blast walls**





# USACE boosting skills of Afghan Engineers through PRT's

Engineers in remote provincial reconstruction team assist locals

Story by | *Hank Heusinkveld* Photos by | *U.S. Air Force Staff Sgt. Stephen J. Otero*

U.S. engineer Hector Cruz, right, assigned to the Khost Provincial Reconstruction Team, explains technical equipment with a group of Afghan engineers during an training course in Khost.

**K**host, Afghanistan, Afghan civil engineer students from the University of Khost got a boost to improve their practical knowledge of what it takes to be in the demanding profession with help from the Khost Provincial Reconstruction Team (PRT). And an Afghanistan Engineer District-North civil engineer on the PRT helped get them up to speed.

In January, Hector Cruz lead an intense, weeks-long course that immersed the students in everything from how to read sophisticated engineering instruments to what to look for when designing roads.

“The course was designed to train the local engineers on quality assurance,” Cruz explained. “They don’t have any practical experience when they graduate, so we train them so that they can eventually work either with an organization like a PRT or USAID.

We train them on how to do something correctly engineering-wise. This covers everything from safety all the way to vertical and horizontal construction.”

The mission of the PRT is to connect the Afghan people to their government by transforming the environment to increase the legitimacy of the Government of the Islamic Republic of Afghanistan at the Provincial and District Levels. In addition, the PRT is designed to influence the populace to reject influence by anti-Afghan forces. Efforts are focused on building Afghan governance and professional capacity to provide and sustain basic services, access to justice, security and a lawful economy.

Cruz said the engineering students are more than willing to get started reconstructing their war-battered country. Their foundation as students is solid, and with the

practical experience they gained from the course they’re well on their way to becoming responsible and dedicated engineers who are willing to do what it takes for the massive reconstruction of Afghanistan.

“The curriculum from the University of Khost is similar to any university in the U.S. I had a very interactive class where I encouraged them to ask questions. And they do ask very good questions. They are very intelligent and willing to learn, and they’re very interested in growing as engineers. One thing that I try to instill in them is that when they graduate from college that’s just the first step. After that, you have to keep learning and keep growing. I give them a lot of references so they can keep up with engineering trends.”

The PRT in Khost is currently developing 30 projects in partnership with the Afghan government throughout Khost’s 13 districts including schools, major roads, retaining walls to prevent flooding of farm land, security walls, medical clinics and government facilities.

Each project is targeted to address a specific concern or issue in the region, and is coordinated with local and district leadership to ensure effectiveness and sustainability. While the contracting and construction is largely an Afghan-led process, PRT civil engineers like Cruz conduct regular quality assurance assessments of ongoing projects to ensure proper building processes, material usage and contract management.

A few provinces away in Bamyan, another AED-N civil engineer is making a difference in reconstruction efforts. Carl Knaak, a project engineer on the Bamyan PRT, has helped make life easier for Afghans in Bamyan’s seven districts. A veteran PRT member, his first tour began in October of

2007 and lasted through November of 2008 to stand up the Bamyan PRT. During his second stint, he’s helped provide technical assistance and project management for the construction of roads, clinics, schools, and humanitarian aid.

“When I signed up initially I wanted to do something different,” he said. “The PRT’s missions are to make life better for people, to make their lives less susceptible to outside influences by giving them decent schools, decent clinics, and good roads. So that really has a lot of impact.”

Knaak said a few projects in particular have made immediate impacts. The PRT helped build the New Bamyan Radio Station, a 300-500 watt station that’s helping to

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“The reconstruction team’s goal is to go into a destroyed society and help it recover to make it less susceptible to outside influences.”

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broadcast information from the government, and a regional health training center funded by Singapore to train nurses, midwives and doctors.

“The reconstruction team’s goal is to go into a destroyed society and help it recover to make it less susceptible to outside influences. We help give them basic infrastructure

and a certain sense of pride to be a supportive person in their community.”

Knaak said there are obstacles that are challenging for the PRT. Number one is illiteracy.

“Right now we’re trying to do a training program to try to develop some skills. And oddly enough when I went out to advertise for it there are people who wanted to take it, but they were illiterate. We’ve had to modify some of our courses because of that, and we try to make it more hands on. We can’t use something like PowerPoint.”

Knaak said that being a member of a PRT sometimes means cross-training into other fields. The preservation of water supplies is a big priority, and it takes some brainstorming

to find solutions to problems.

“I hear complaints about people getting sick from wells. What’s happening is that they’re building livestock corrals near the wells or they’ll have a well that’s level to the ground where anything can fall into it. And there is a unique issue that a lot of areas are contaminated with salt. With livestock, especially poultry, they’re very susceptible to salt. So the agricultural folks on the PRT explained that may be why there are no

chickens or turkeys in some areas. There are correlations between salt and poultry and well water.”

Both Cruz and Knaak say they find their roles on the PRTs very rewarding, and they feel they’re making a difference for the people of Afghanistan. The knowledge they’ve acquired over the years as civil engineers will trickle down to the smallest projects that make up the overwhelming mission of rebuilding this country. 



Carl Knaak of the Bamyan PRT works with two Afghans on a reconstruction project in Bamyan province.



# The Graduates

Afghan lieutenants graduated from engineering internship.

Story and photos by | Paul Giblin

U.S. and Afghan personnel salute during the playing of the countries’ respective national anthems at start of the graduation ceremony at the Qalaa House compound in Kabul on April 7.

**K**ABUL, Afghanistan – Afghan Army Lt. Shah Noor Muhammadi Bromand and Lt. Mohammad Shafliq Haibat graduated from an engineering internship program conducted by U.S. Army Corps of Engineers on April 7, marking just the second class to complete the program.

Bromand and Haibat, who already had obtained civil engineering degrees from the National Military Academy of Afghanistan, gained practical experience through the internship.

The program featured an eight-week rotation that focused on contracting, engineering and scheduling at the Corps of Engineers’ district headquarters in Kabul. It also included a 12-week segment on construction administration at the Corps of Engineers’ regional office in Mazar-i Sharif.

The internships were specifically tailored for Bromand and Haibat, who will return to the National Military Academy of Afghanistan as instructors. “We try to concentrate on their fields of instruction so they can become better teachers,” said Sandy Higgins, the Corps of Engineer’s internship coordinator. 



Program, congratulates graduate Afghan Lt. Mohammad Shafiq Haibat, right, while graduate Lt. Shah Noor Muhammadi Bromad, center, accepts congratulations from others.



# Parting Shot

Dust and debris take flight as a Russian-made Mi-8 transport helicopter under contract by the U.S. Army Corps of Engineers touches down at the Khair Khot Garrison. The Afghanistan National Army base is under construction in eastern Afghanistan.

Photo by | *Paul Giblin*