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Air Force civil engineer, Capt Seth Platt, talks with local officials and community leaders during a site survey for a proposed secondary school in the Nijrab valley of Kapisa province, Afghanistan. (photo by SSgt Kyle Brasier)

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One Team, Many Challenges

For Air Force Civil Engineers, 2011 continues to be a year of simultaneous challenge and opportunity. We are working on meeting today's challenges even as we look toward the opportunities of the future.

The challenges we face are abundant given our current fiscal pressures. The Secretary of Defense's (SECDEF's) Efficiencies Initiative and the ongoing Presidential and Congressional deliberations to reduce both federal spending and the national deficit point to one conclusion: Funding levels will be reduced.

History tells us that postwar funding reductions are nothing new. These reductions include World War II (40 percent), Korean War (28 percent), Vietnam (37 percent) and Gulf War (14 percent). If those numbers aren't enough to convince you, the FY12 President's Budget request reduced Air Force installation support funding by $6B or about 10 percent over the FYDP with future reductions imminent. The Air Force is changing quickly and we must do our best to not only keep up, but to lead future change. Air Force civil engineers will play a major role in efforts to be more efficient and effective with limited and constrained resources. We have to be prepared to lead the way in reducing overhead, realigning and rightsizing manpower, minimizing support operations, and finding new and innovative ways to ensure we are not only meeting the SECDEF efficiency goals, but spending our tax dollars wisely.

Our community must build more efficiency into our operations while providing a standard level of support that ensures installations can support the mission and we are able to execute our contingency missions worldwide. We are already working more effective and efficient ways of doing business into our everyday practices. Through centralizing our approach to asset management, we must continue our effort to make smarter investments with limited resources. In strategic sourcing we are striving to acquire commodities and services more efficiently to yield savings for civil engineers and the Air Force. In addition, I am convinced there are additional opportunities as we analyze our recurring work program and manpower standards. I challenge each of you to use these initiatives to their fullest and continue to look for additional ways to "Lead the Change."

We also face challenges from our involvement with joint basing and contingency operations. As our extraordinary team of active duty, Reserve, and National Guard Airmen support these areas, we demonstrate what makes us valuable and integral members of the larger DOD team. At joint bases throughout the United States, the Air Force is showing the other Services how we do hands-on installation support. For example, at JB Elmendorf-Richardson in Alaska, civil engineers assumed responsibility for more than $2B in joint base facility assets over a total area of nearly 85,000 acres. At joint bases where the Air Force has the lead — and at those where we don't — there are stories of merging into highly effective joint engineering teams to maintain our nation's assets.

Civil engineers, officers and enlisted, continue to provide their unique expertise and leadership to the U.S. Army Corps of Engineers in Afghanistan in positions ranging from officers-in-charge to resident engineers and senior enlisted advisors. This summer, for the first time, an Air Force civil engineer will assume command of an Afghanistan Engineer District. I also want to recognize the terrific work being done by the engineering team in Japan as they respond to one of the most devastating natural disasters in history. They are continuing to recover the installations while providing support to the host nation.

This issue also profiles leaders who have made their mark on the Civil Engineering community. We can learn from the leadership principles and career paths of former leaders, such as the late Maj Gen William Gilbert, and current leaders, such as Brig Gen Theresa Carter. We depend and rely on the outstanding leadership of our Civil Engineering team — officer, enlisted, and civilian — to enable us to surpass our challenges. I had the honor to promote one of our outstanding leaders, Tim Green, to brigadier general on April 8, 2011. Brig Gen Green is a strategic and operational leader with a focus on taking care of his people. He will serve our engineers, Airmen, and Air Force well.

Changes and challenges are inevitable and necessary, but Air Force Civil Engineers have a tradition of adapting and overcoming, and turning those challenges into opportunities. I ask all of you to continue to be brilliant at the basics, to be innovative, and help us find ways to do things smarter, faster, better, and cheaper so that we "Build to Last. Lead the Change!"

Timothy A. Byers
Major General, USAF
The Civil Engineer

In May 2010 the Air Force promoted its first female
CE Magazine sat down to talk to Brig Gen Theresa

milestones, mentors,

Brig Gen Theresa C. Carter is the Director of Installations and Mission Support for Air Mobility Command at Scott AFB, Ill. She entered the Air Force in 1985 as a distinguished graduate of the Air Force ROTC program at Purdue University. As a career civil engineer, Brig Gen Carter has served in a variety of positions at base, major command, and Air Staff levels, including squadron, group, and wing commander. In this interview, she discusses the experience and people integral to her career success, and what AMC's civil engineers are accomplishing for their command and for the Air Force.

CE Magazine: How does it feel to be the first female General Officer in civil engineering?

Brig Gen Carter: Surprising and humbling. There certainly have been trailblazers for me, Col Sue Waylett being primary among them. She was the first female Air Force civil engineer to be promoted to colonel. When she first came into the service, she was in the WAF — Women in the Air Force — so if you look at where the Air Force was 25, 30 years ago, there's a lot that has changed. A big part of it is being at the right place at the right time, having the right opportunity, and then of course you have to do something with it. Creating a general officer typically takes anywhere from 23 to 25 years, sometimes a little bit longer, so, I think it was just a matter of time before we had enough women in the career field staying in long enough to have the opportunities that make you competitive. I'm confident that we're going to see more folks behind me and that I won't be the one and only.

"...sometimes people don't recognize mentoring when they see it . . . throughout my career I've had great mentoring from bosses, peers, and subordinates..."

CE Magazine: When you were an ROTC cadet at Purdue, did you foresee or contemplate this as the future of your career?

Brig Gen Carter: When I was in ROTC, I only at the last minute put CE on my "dream sheet." I'm an industrial engineer, and wanted to be a human factors engineer in the Air Force. Purdue had a program for engineering freshmen where each school came in and explained what they did. The industrial engineers showed an Air Force human resources lab with civilians and military working on cockpit designs to make it easier for the pilot to fly the airplane. I thought, "Well, if I can't fly, that looks pretty cool," so that was my first choice on my dream sheet. I put something down for second just in case, although I was sure I'd get my first choice like all the previous year's cadets. But the NCO said, "You've got to put down three choices," and when I asked him what he thought, he said "I think CE would be good," and so it was my third choice.

Never did I expect to get an assignment in CE, and when it came and I was going to Tinker Air Force Base in Oklahoma City, I talked to the Commandant of Cadets, Maj Johnston, about an education delay, but he said "No, you need to go in CE. It'll be good for you. You'll do well in it. If you want your masters, the Air Force will send you to school after you've been in for a while."

Sure enough, after I'd been in for two years, I got to go to an AFIT program at the University of Oklahoma. But, I was still not convinced that I was a good fit in CE. I didn't really care for my first assignment; I didn't feel like I was being challenged enough. It wasn't until I was assigned to Shaw after graduate school that I saw a different side of civil engineering. I had a chance to deploy a couple of times and to be in

general officer in Civil Engineering.

C. Carter about

and missions

charge of people. When I went to SOS and met people who worked in a lab, understood what they did, and then compared it to what I had a chance to do, it was like, "Wow. Maj Johnston was right." This was a better fit for me. I think that we do a much better job now letting cadets in ROTC and the Academy know what this career field is like.

So, no, I never thought, in ROTC or even as a lieutenant that I would have a chance to do what I've done. When I first came in, the most a civil engineer hoped for was to be a squadron commander. So, to have a chance to be a group commander and a wing commander, much less a general officer was just never really thought of.

In 1990, Brig Gen Theresa Carter (standing, far right) deployed from Shaw AFB, S.C., to Al Dhafra, UAE. Others deployed from Shaw included Col (Ret) Marv Fisher (standing, far left), Col Bryan Gallagher, who passed away in 2008 (standing, second from left) and Col Scott Hoover (seated on right), who is now the 2 MSG commander, Barksdale AFB, La. (courtesy photo)

CE Magazine: How important do you think mentoring has been to your career, and who were — or are — your mentors?

Brig Gen Carter: I think it's important and I also think sometimes people don't recognize mentoring when they see it, because they think that they have to have somebody that they can point to and say, 'This person is my mentor." I think throughout my career I've had great mentoring from bosses, peers, and subordinates, but I don't know that I would point to any one person and say, "Okay, throughout my career they've been a mentor."

I've had great bosses that have nudged me or pushed me, who have said, "I think you ought to apply for this or try for that." Retired Col John Medeiros, who was my boss at Shemya, was one. I'd only been in the Air Force for six years and that was my first time being an operations flight chief. The slogan at Shemya, a little two-by-four island, was "It's not the end of the world, but you can see it from here." But it was a great job, and he was great at getting you to believe in yourself when you didn't think that you were ready for something.

I got a chance to work as an exec at ACC for General Mick McAuliffe — very briefly — and then General Joe Allen, and they were both just wonderful gentlemen and I learned a lot just watching how they dealt with issues and worked with people. General Byers and I worked on the ACC staff together and he was my squadron commander at Spangdahlem, and I've really admired watching him, how he deals with issues, and he's always been very good about, again, giving that little push.

A lot of times I think I've learned more from the people that have worked for me than I may have taught them. Chief Tom Pelfrey was a master sergeant working for me at Shemya running the equipment shop. He ended up doing his last 15 years in the Air Force as a First Sergeant, and he's just one of those great leaders. He's now been retired three years and he still gets people inviting him to speak in various forums. He was one of the best motivators I ever saw, because he just took care of people and took care of the small things.

Retired Chief Ed Lubbers worked for me at Spangdahlem and Davis-Monthan. He was a great mentor, with a wonderful ability to, in a very gentle way, kick an NCO in the butt and say, "Okay, you've got more potential. You need to do more." One of those guys he pushed was now-retired Chief Karl Deutsch, who worked for me also at Spangdahlem and Davis-Monthan. Those two guys were just incredible at how they very effectively got things done. So, it was neat for me to be able to watch them make things happen.

CE Magazine: As AMC's Director of Mission Support, what do you think is civil engineering's biggest contribution to the command's particular mission?

Brig Gen Carter: This is my first time at AMC. I've been in all but two commands and have seen a lot of different missions. Air Mobility Command is pretty fascinating to me. It's all about airlift, air refueling, and aeromedical evacuation. There's a fourth component requiring support that you normally don't hear about as much called Global Reach Laydown, which is basically about ensuring that the enroute infrastructure is in place for such things as a tanker bridge, or moving cargo and people and equipment to various theaters overseas. It's also about what we call our contingency response wings, which have civil engineers who go out and do the open-the-base concept, assessing airfields to see if they could support AMC operations.

In 1996, as the operations flight chief for the 52 CES, Spangdahlem AB, Germany, Brig Gen Carter was promoted to major with the help of her commander, then Maj Timothy Byers, now Maj Gen Byers, The Air Force Civil Engineer, and the 52nd deputy ops flight chief, CMSgt Ed Lubbers (USAF, ret.). (courtesy photo)

In the prime missions of airlift, air refueling, and aeromedical evacuation, again, it's all about providing the facilities, the people, and all the things that go with supporting that whole global logistics enterprise. It's a very, very busy command. Our MAJCOM brief states that every 90 seconds some place in the world an AMC aircraft is taking off. About six months ago, the command hit a high-water mark for sorties in one day — 1,050 that the Tanker Airlift Control Center monitored and had some influence over. And, we've had huge advances in aeromedical evacuation. I think being a part of all this, again in a supporting capacity, is pretty neat.

CE Magazine: AMC has two joint bases where the Air Force has primary responsibility, JB Charleston and the tri-service Joint Base McGuire-Dix-Lakehurst and one, Lewis-McChord, where the Army is lead. You also have tenant units at several joint bases. Is there any difference in the way Civil Engineering supports these joint bases and tenant units?

Brig Gen Carter: I don't know if there's a significant difference. For MDL and Charleston, the bases where we're the supporting component, their funding is now "fenced." In other words, the command does not take a tax from the money distributed from the Air Staff for those joint bases, because the other services transferred money to us for the express purpose of providing installation support to the standards spelled out in the COLS, the Common Operating Levels of Support. At those joint installations, they may in fact be getting a level of funding higher than say at Scott or at Little Rock, because their funding is fenced. In some cases, they are funded to a higher level than maybe we can afford in the Air Force. OSD sets a goal of 90 percent sustainment, but often it's difficult at end of year to actually reach that amount because you have migration of money out to support other CE or command requirements.

In September 2009, Brig Gen Carter (fifth from left) accompanied The Air Force Civil Engineer, Maj Gen Timothy Byers (second from left) on a trip to the Southwest Asia area of responsibility. Also shown are (left to right) Col Marv Smith, CMSgt Pat Abbott, Brig Gen Dave Howe, Col Brian Yolitz, and Capt Casey Bartholomew. (courtesy photo)

The situation is reversed at Lewis-McChord, where the Army is the lead. Air Force Lt Col John Frey is still a CE commander, but the only people in his squadron are military members. So he's wearing two hats. He's a CE commander, ensuring that the military members are trained and equipped and ready to deploy, while at the same time, day-to-day he's the Deputy Director of Public Works, worried about delivering CE support for the joint base.

We also have large AMC units at joint bases at Andrews, at Elmendorf-Richardson, at Joint Region Marianas, and at Pearl Harbor-Hickam. At those installations where Transportation Working Capital Funds are used, we have to make sure that the Army and the AMC units there are still identifying their requirements that are eligible for this funding, and then we have to work with the Army garrison to make those projects happen. Lewis-McChord just hit full operational capacity 1 October, so we're still learning how to interface with the Army processes, and making sure that we don't, in essence, task or enter the system at the wrong point.

Overall, I think it's a process that will continue to evolve, to make sure, again, that we're not overlooking something and that the flow of information is working properly.

CE Magazine: Civil Engineers are in high demand in the Southwest Asia AOR. How are AMC's engineers contributing to this mission?

Brig Gen Carter: Of the overall taskings for the Air Force, I think we typically have anywhere from 17 to 20 percent of the engineers that get deployed at any one time. AMC and ACC are probably the commands with the two largest deployment taskings in any given cycle. And, a lot of folks from my staff have been deployed: We are now on our third member of the staff providing construction support in Pakistan, and some have served on Provincial Reconstruction Teams. They've run the gamut of being at Al Udeid to being at very small, up-and-coming locations in Afghanistan. Although they don't like being apart from their family, the sense of accomplishment and feeling of pride are pretty significant for them.

In March 1992, then Capt Carter reenlisted CMSgt Tom Pelfrey (USAF ret.) atop the Cobra Dane radar at Shemya AFB, Alaska, where she was the operations flight commander for the 673 CES. (courtesy photo)

"Often, when you don't get an opportunity, you think "I didn't get what I wanted." But ... you got what you needed, and that's made all the difference."

CE Magazine: How are you addressing the problems that they're having with being away from their family and how the deployments affect them?

Brig Gen Carter: We're doing a couple of things. AMC and ACC are working together on something called "Comprehensive Airmen Fitness." It's somewhat modeled after the Army initiative, "Comprehensive Soldier Fitness." It's basically establishing an environment or framework across five areas that focus on how you care for families. How do you ensure that you've got mechanisms in place to promote four "pillars" — their physical, spiritual, emotional, and mental well-being. So, last year, the command asked wing commanders, "What do you need at your installation across these four pillars that would help the military member and their family?" Some bases did things like enhancing areas in their chapel annex. We also funded a lot that was fitness-oriented, with the big focus on the new fitness standards.

CE Magazine: What upcoming challenges or changes do you see for Air Force Civil Engineering in general?

Brig Gen Carter: Well, certainly fiscal challenges across the board, for the government in general, and the country as a whole. I don't expect budgets will get any bigger. And certainly there's a push to continue to look at making the most of every dollar you get with asset management approaches. Whether we like it or not I think budgetary pressures will continue to force us to be creative in finding cheaper ways to do things.

I also think that we're going to continue to have some personnel challenges with retention. I know General Byers is pushing very hard to get the military deployment tempo back to at least 1-to-2, and I think that will be helpful. And if you look at the civilian workforce — not just in CE, but across the board, we have a large percentage of our senior civilians retiring. I know in my contracting division, I've already had about 70 years of experience retire, and there are more that will come over the next six months. I don't necessarily see us bringing in enough new folks to grow and take their place, because of the civilian hiring process and how long it takes us to replace somebody when they leave. And, with our intern programs, how do we get enough people to come in, get them excited about serving in the government, and then stay in?

So, I think dealing with those two issues, having the dollars to take care of facilities and maintain installations and being able to keep and retain military and civilian members will continue to be major focus areas in the years ahead. The good thing in all of that is the talent that we have, both military and civilian, is just incredible. I look at some of our young, company-grade officers and they blow me out of the water. I am very, very hopeful about their future and we just need to keep them in and have them sitting here ten or fifteen years from now talking to CE magazine.

CE Magazine: Is there anything else you'd like to add?

Brig Gen Carter: Again, just thanks for the opportunity. Would I have selected CE now, knowing what I know — absolutely! Often, when you don't get an opportunity, you think, "I didn't get what I wanted." But when you look back, well, you got what you needed, and that's made all the difference.

I think there are probably a lot of other people who were equally or more deserving of getting promoted to general officer than me. I certainly think I had the fortune of "right spot, right time, right group of people," and it all came together in a an opportunity, a challenge, and of course that I had to do something with it. I'm honored to be recognized for that, but I understand that I'm not here by myself. There are a lot of people who helped get me here.

Editor's Note: For space considerations, some content from the CE Magazine's interview with Brig Gen Theresa Carter was not included in this print version. To read the full article, please go to http://www.afcesa.af.mil/library/cemagazine/index.asp.

TRANSFORMING TOPCOVER IN THE LAST FRONTIER

Mr. James R. Miller
Mr. Jon K. Scudder
673 CES/CEAN

On Oct. 1, 2010, Joint Base Elmendorf-Richardson (JBER) met the milestone of full operational capability (FOC) as mandated by Congress under the 2005 Base Realignment and Closure process.

"FOC marks the final stage of Elmendorf Air Force Base and the Army's Fort Richardson melding installation management functions and assets to become Joint Base Elmendorf-Richardson, the sole provider of support, services, and a home to more than 40,000 Airmen, Soldiers, family members, retirees, and civilians," said Air Force Col Russ Hula, commander of the 673rd Civil Engineer Group (CEG).

Because of joint basing, Soldiers no longer need to "leave home" to utilize Air Force planes for training missions. (photo by MSgt Keith Brown)

"The merger took years of hard work by dedicated people — Soldiers, Airmen, civilians — to set this joint base up for success."

JBER is one of a dozen DOD joint bases affected by BRAC. But to Col Hula, JBER is special, because of the two original bases being collocated adjacent to one another and the key decisions made in the merger process.

"We are quite fortunate that the two installations share a common border," said Mr. Bruce Steely, a civil engineer on the Joint Base Enterprise Team. "In fact, prior to joint basing, Elmendorf got its drinking water from Fort Richardson and our fire departments were already merged. Each installation excelled in maintaining roads and buildings in an arctic environment, and the two environmental staffs cooperated in many areas. We have been marching down the road of full integration for years so perhaps it was a more natural evolution for our two installations than many of the other joint bases," said Mr. Steely.

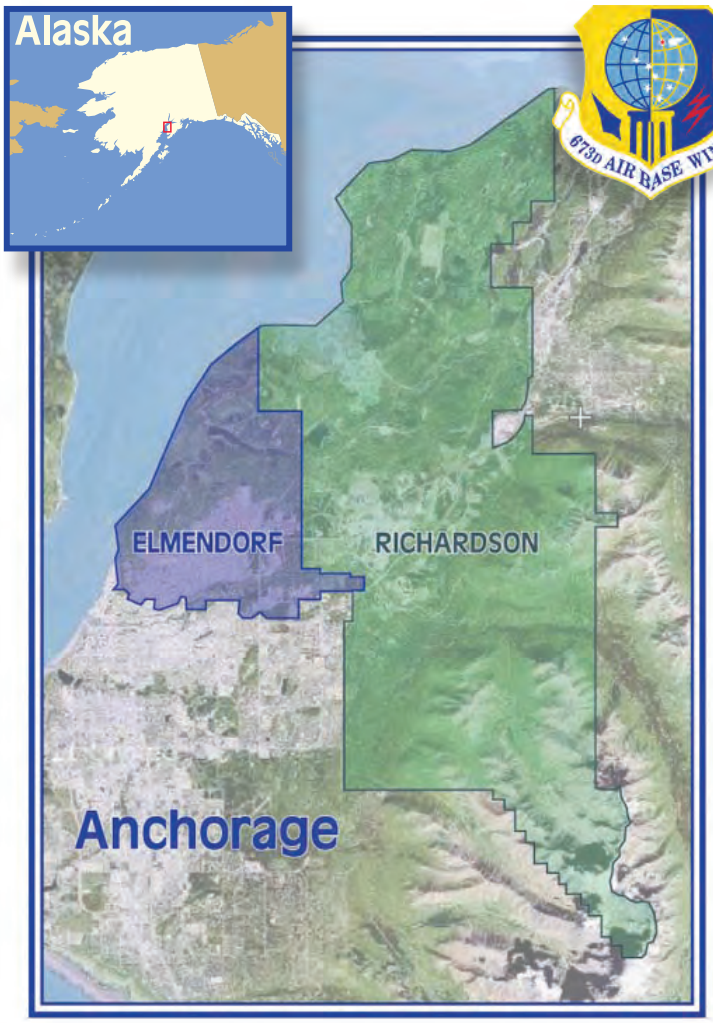
"The approach we took at JBER was one of pure integration at every level," Col Hula said. "Our missions are so complementary and interdependent upon one another; all of our infrastructure and decision-making processes are blue-green blended. I think that will be one of our keys to success."

He said JBER has Air Force and Army troops working together in many of its organizations. "So not only is our command team joint but our subordinate organizations are also joint," said Col Hula. "We have an Air Force wing commander, Col Robert Evans, and an Army deputy commander, Col Timothy Prior, along with a command chief master sergeant and a command sergeant major."

"The culmination of years of planning, research, and negotiation to get beyond service-specific cultures developed into an integrated joint base capability," said Col Prior. "And, the 673rd Civil Engineer Group is a prime example of an integrated approach to providing first-class support."

The group provides corporate oversight for the 673rd and 773rd Civil Engineer Squadrons who operate functionally across the joint base. "I believe this is the only means of achieving efficiencies, while remaining effective," said Col Prior.

Commanded by Lt Col Dave Norton and Lt Col Pete Berube, the two squadrons provide readiness, emergency management, construction, maintenance and repair, natural and built asset management, fire protection, and explosive ordnance disposal to two active and Reserve Air Force wings and Army units consisting of two brigades and with nine subordinate battalions. This is in addition to support-



ing Alaska Command, Eleventh Air Force, Alaskan NORAD Region, and 59 tenant units.

The human factor in the CEG merger involved integrating more than 1,200 Army Department of Public Works and Air Force squadron members. The two civil engineer squadrons were responsible for combining more than $2B in joint base facility assets and the transfer of Fort Richardson's 71,000 acres, bringing the joint base total acreage to nearly 85,000 acres.

"I am truly proud of the results of the herculean effort it has taken to merge our two installations," said Col Hula. The combining of our assets has enabled us to be even better at our joint military mission of providing global power projection."

Lt Col Berube, commander of the 773 CES, said JBER did result in some infrastructure changes. "BRAC required the joint base to consolidate command and control functions by bringing together nine separate centers under one roof and moving the 176 ANG from Anchorage's Ted Stevens International Airport to the joint base. Moving the Guard to the base required the construction of new multimillion dollar support facilities to accommodate the guard's robust statewide air search and rescue operations."

"Merging the two installations really drove home the enormity of how civil engineering is responsible for the successful functioning of a base," said Lt Col Berube. "Everything from power, water, environmental, buildings, roads and winter operations — the list of what we do and what needed to merge seemed almost endless when we started adding it up."

"What I am proudest of," said Lt Col Berube, "is that during this monumental merging effort, Fort Richardson and Elmendorf civil engineer staffs continued to provide excellent daily mission support without skipping a beat — a true testament to the high level of professionalism existing on both installations. Combining these two talented staffs will surely make us a juggernaut to deal with when DOD and Air Force awards come around."

Joint basing has presented some organizational and administrative challenges. One example deals with the assignment of supervisory positions. "In each merged area, there were at least two individuals with great qualifications and vast experience, yet there can only be one chief," said Lt Col Norton. "On these issues, we again took an integrated approach."

"There is still a lot to learn in the coming year to address the differences in Army and Air Force policies, business methods, and mission support requirements" said Col Hula. "I am confident the efficiencies we gain will translate directly into improved quality of life and combat effectiveness. This is the true essence and purpose of the BRAC initiative."

Mr. Miller is the Chief of Natural Resources and Mr. Scudder is the Cultural Resources Manager for the 673 CES Asset Management Flight, JB Elmendorf-Richardson, Alaska.

SSgt Scott Strobel, an Air Force Fire Emergency Services rescue chief listens to a briefing during a training exercise. The Air Force and Army bases' fire departments have been merged since 2002. (photo by A1C Jack Sanders)

Civil Engineers and Social Media

Maj Chad Gemeinhardt
AF/A7CI

Air Force Civil Engineers have a long rich history of building strong communities around the world. Embracing the ever-changing environment, engineers now also lead the way in building a strong online community using today's social media tools. In September 2010, the Strategic Communications Team in the Office of The Air Force Civil Engineer (A7C) launched the Air Force Civil Engineering Facebook page. Two important goals drove the page's development: improve communication between and among Civil Engineering leaders and Airmen, and engage the Civil Engineering community and its supporters in ways that give them the opportunity to contribute and interact.

Civil Engineering's Facebook page, at "facebook.com/AirForceCE," connects more than 3,200 "fans" to each other, a number that grows every day as more Airmen, civilians, and their family members "Like" the page. The daily posts of the latest news and announcements, along with special features such as reporting on the incredible accomplishments of Civil Engineering's men and women, providing links to new photos and videos, and sponsoring discussions, have prompted a positive response. Now, Airmen and civilians from around the world meet and discuss civil engineering topics from anywhere, seek career advice, and support each other as we work to achieve the Civil Engineering mission to provide, operate, maintain, and protect sustainable installations.

In addition to launching Facebook on Dec. 8, 2010, we deployed an event-hosted Twitter feed to connect to our energy industry partners outside the Air Force. This was one of the first-ever examples of Air Force implementation of this social media strategy. A team of representatives from the Office of the Secretary of the Air Force, A7C, AFCESA, and Air Force Public Affairs attended the 2010 Air Force Renewable Energy Industry Day at Irving, Texas and "tweeted" in real-time before, during, and after the conference to followers who had signed up under the Twitter account name "@AF_RE_Day". The team built a community of more than 90 followers in the three weeks leading up to the event, and tweeted more than 270 times to promote, cover, and recap the event. On the day of the event, more than 30 active participants from around the country followed and discussed Civil Engineering's renewable energy initiatives, with a collective reach of more than 9,000 people.

CE Facebook Fan Comments

"It is a great idea for those who like to know what is going on…"

"I enjoy seeing items about what our great CE Airmen are doing…"

I've never seen a group of folks that have such a passion for their duties…

"It offers an additional tool for communication, so keep up the exceptional work!"

We are proud of these early successes, but this is just the beginning stages of our developing presence on social media, with new ideas and plans to come. If you have suggestions for how your A7C Strategic Communications Team can continue to build its online social media networks, submit your ideas by posting a comment on the Facebook page.

Additional online Civil Engineering communities include individual squadron and Airmen dorm leader Facebook pages. These pages help to further foster community locally. For tips on how to set up a Facebook page for your squadron or function, we offer setup and administration Standard Operating Procedures (SOPs) on the CE Portal at https://cs.eis.af.mil/a7cportal. These documents include instructions on meeting DOD Social Media policy compliance requirements, and the common "do's and don'ts" of managing a government Facebook page. A case study of

A7C's Twitter use at the Air Force Renewable Energy industry day is also available on the CE portal.

Collectively leveraging social media helps the entire Civil Engineering community connect with Airmen locally and around the world. Building a solid community both online or on the ground are key if we are to support Air Force Civil Engineering Strategic Goals while we "Build to Last, Lead the Change."

Maj Gemeinhardt is the Chief, Strategic Communications, Office of The Air Force Civil Engineer, the Pentagon, D.C.

Statistical SNAPSHOT

There are more than 500 million active users on Facebook , 50% of which log on to Facebook in any given day.

The average user has 130 friends and is connected to 80 community pages, groups and events and creates 90 pieces of content each month .

More than 2.5 million websites have integrated with Facebook, including over 80 of comScore's U.S. Top 100 websites and over half of comScore's Global Top 100 websites .

There are more than 3,275 active users on the Air Force Civil Engineering Facebook page and roughly 66 percent of them log on to the page in any given week.

The Air Force Civil Engineering Facebook community reflects the Air Force Civil Engineering community at large: 44 percent of our users range in age from 18 to 34, and 76 percent are male. Perhaps most impressively, our users log in from over a half-dozen countries — including the United States, Germany, and South Korea.

Since its launch on Sept. 15, 2010, Air Force Civil Engineering Facebook posts have been viewed over 655,000 times and have received over 1,300 likes and comments.

*** www.facebook.com/press/info.php?statistics***

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A Natural Match to Build Communities

THE BUSIEST FLIGHT UNKNOWN TO MAN

Capt Joel Hearn
435 CTS/MCF

The Military Construction Flight (MCF) is one of the most productive flights still unknown to most people. Created in February 2008, the MCF operates out of the 435th Construction and Training Squadron at Ramstein AB, Germany. The flight's 18 Airmen are specialized in five civil engineer career fields and are capable of executing small RED HORSE-type projects. Its purpose is to build partnerships with potential NATO members in Eastern Europe through humanitarian construction and to conduct exercise-related construction for future joint exercises throughout the European and Central commands.

In the beginning, MCF was created to construct water wells and other projects for Africa Command's humanitarian mission. Now, the MCF is USAFE's premiere deployable construction team with a cradle-to-grave operation — engineering, design, logistics, and transportation — executed with the support of the squadron's German local nationals.

The MCF's maiden construction project was to build a 2,000-foot road at RAF Feltwell, United Kingdom, to give more than 8,000 students direct access to the combat arms training range. The project was successful and the flight was ready for its mission.

Partnership for Peace

In the spring of 2009, the MCF had its first humanitarian construction project: renovate a clinic in Knin, Croatia, and bring the building up to European Union standards. The 10-week project included replacing all radiators and exhaust fans, renovating electrical and plumbing lines, and repainting the building's interior. The building has seen only minor maintenance since the end of the Cold War.

The next project started in the summer of 2009 in Foca, in the region of Bosnia, just about five hours northwest of Knin. The task was to completely renovate a local school for 400 students. This project marked the first time a MCF team had not stayed on a military installation. The team relied on the Bosnian military and local police force for the security of equipment and personnel for eight weeks while staying in a local hotel.

The latest Partnership for Peace project was completed in fall 2010 at a health clinic in the small town of Mojkovac, Montenegro. The MCF installed new thermal insulation, which involved installing new windows and renovating the clinic's entryway. The project was a part of a multinational medical exercise Montenegro was hosting. What made this project unique was the combination of local contractors working alongside MCF personnel. The importance of this project was that NATO forces battled Montenegrin forces during the Balkan Conflict. The project was an excellent opportunity to show local unity with U.S. forces and also help the economy of the small industrial city of Mojokvac.

Exercise-related Construction in CENTCOM

The MCF conducted its first exercise-related construction project in the spring of 2010. The first two projects were building a munitions maintenance facility and a shower/shave facility at a temporary lodging facility in Israel. Both projects were started and worked on by multiple Air National Guard civil engineer units between 2001 and 2009, and USAFE officials wanted the projects completed. After spending 10 weeks in Israel, the 18-person MCF team joined with a team from the 786 CES to complete the facilities, which directly support Juniper Cobra, a joint and combined exercise which involves more than 2,000 U.S. and Israeli forces. The members of the 786 CES were sourced by USAFE/A4/7 to augment the MCF with a deployable Unit Type Code (UTC) tasking on larger projects. This project was the first to execute that initiative and expand the construction capability of the MCF. USAFE/A4/7 created a 34-Airmen UTC which encompasses all construction Civil Engineering AFSCs with leadership. This UTC can work independently or combined depending on the mission.

Broadening Skills beyond Air Force Specialty Codes

As with all construction, every job is unique and the labor demand differs for all crafts. The best part of the MCF is the ability to learn crafts different from an Airman's primary specialty code. In Bosnia, there were plumbers toiling alongside structure troops. In Israel, there were heavy equipment operators mixing mortar and building concrete masonry unit walls in the new latrine. As a flight, MCF personnel are setting their sights higher than "jack of all trades." MCF Airmen are learning leadership skills; all project managers are purposefully NCOs (not SNCOs or CGOs).

MCF Airmen are also learning how to be diplomats in every country they visit.

Changing the Air Force's Role in EUCOM

The 18-person MCF is in its infancy as USAFE's premier short-notice and humanitarian construction team. Other services have been providing military construction assistance in EUCOM for many years while the need for assistance to Eastern Europe only continues to rise. With the Air Force now contributing humanitarian construction assistance in EUCOM, the sky is the limit for training future civil engineer warfighters and bringing assistance to needy people in Eastern Europe. There's nothing better than completing a hospital or school project where people who were skeptical of the U.S. military miss you when you leave.

Capt Hearn is the Military Construction Flight commander, 435 Construction Training Squadron, Ramstein AB, Germany.

(All photos courtesy the author)

GOING TO WAR WITH THE CORPS

Two Air Force officers give their perspective on working with the U.S. Army Corps of Engineers in Afghanistan

Lt Col Rich Sanders
Maj Chris Meeker
USACE/Afghanistan

After nearly a decade of joint operations in Iraq and Afghanistan, as Air Force civil engineers we're used to — and quite good at — deploying in joint roles outside of our doctrinal air base–focused mission. So we were not surprised when we arrived at our current deployment with the U.S. Army Corps of Engineers in Afghanistan and found a large team of Air Force civil engineers doing what we do best — leading the way.

Corps of Engineers Mission in Afghanistan

Many Airmen pass through Bagram and see the massive amount of ongoing construction by the Corps of Engineers to build up our largest air base in Afghanistan. While that is a critical part of our mission, most of our work is outside the wire, working to build a foundation of modern construction in Afghanistan that will enable security, governance, and economic growth.

"The scale of the work being done by the Afghanistan Engineer District-North (AED-N) is astounding," said Lt Col Chris West, deployed from the Air Force Institute of Technology to AED-N, which executes all Corps of Engineers projects in Regional Commands East and North. "We have over 500 projects in pre-award or construction, 361 Afghan National Security Forces installations supporting 200,000 troops under maintenance contract, and $1.5B a year in construction placement required to support the international effort in Operation Enduring Freedom."

Corps of Engineers projects include bases; facilities for command and control and power generation; training ranges; police, fire, and border security stations; centers for recruiting and logistics and depot maintenance; ammuni-

Two Afghan National Police (ANP) soldiers occupy a guard tower recently completed by the Corps of Engineers to provide lookout over the Surkhi Parsa Valley in Parwan Province. (U.S. Army photo)

tion supply points; water and electrical distribution systems; hospitals; universities; roads; and city street lights. All are designed and built by Afghan companies and workers to be turned over to the Afghan government for use by the Afghan people.

Aerial Photo of Gamberi Garrison. One of the Afghanistan National Army's largest bases, it currently supports 3,500 ANA soldiers and is still growing under Corps of Engineers oversight.(U.S. Army photo)

Clear, Hold, Build – Engineers at the "Tip of the Spear"

One of the unique aspects of the Corps of Engineers mission is how integrated we are with battlespace owners and their counterinsurgency campaign planning efforts. "In its simplest form, the International Security Assistance Force's strategy in Afghanistan is still 'clear, hold, build'," said Lt Col Pat Carley, who is deployed from the Office of The Air Force Civil Engineer as resident engineer for the Corps of Engineers office in Sharana. This simple formula puts engineers at the "tip of the spear," which makes what we do both interesting and rewarding.

As Air Force officers in leadership positions, we spend a significant amount of our time in operational planning to synchronize construction with kinetic operations. Our projects provide access for clearing enemy territory and outposts for the Afghan National Security Forces to hold the territory. They also create the modern infrastructure the country needs to truly build capacity for the governance, rule of law, security, economic development, and quality of life that will ultimately be the deciding factor in this war. Because construction is often the long-lead action in these plans, timing and good communication are critical.

Building Engineering Capacity

The Corps of Engineers in Afghanistan is also building capacity for engineering so that the Afghans can maintain the infrastructure we've constructed and continue to make progress after the war is over and Coalition Forces have left. We have three primary programs to accomplish this. The first is our Local National Quality Assurance program. Every Corps of Engineers office has a group of Afghan workers whose job is to inspect every project, every day. Because of the training and pay we offer — and because Corps of Engineers jobs look good on resumes — we generally get the most qualified people. The second program we use to build engineering capacity is the "886" program, named for the section in the National Defense Authorization Act that dictates "Afghan First." We catalog and interview all Afghan contractors to not only make sure we get good contractors on our big projects, but also to grow small companies into large ones capable of modern construction. Lastly, all Corps of Engineers offices conduct aggressive outreach to the Afghan engineering community. We visit universities and vocational-technical schools to do training, improve curriculum, help with career planning, and even purchase equipment.

The Air Force Civil Engineer Roles in Corps of Engineers

Air Force Civil Engineers deploy in four general roles for the Corps of Engineers in Afghanistan. Some fill roles on the Joint Staff in Kabul and manage programs that impact all

Over a cup of chai, representatives from the Corps of Engineers' Kandahar Area Office discuss construction with local ANP leadership and U.S. Marine battlespace owners. (U.S. Army photo)

GOING TO WAR WITH THE CORPS

CONTINUED

of Afghanistan. Officers in the field generally fill leadership roles either as an OIC or a resident engineer for an area office. They provide leadership, coordination, and engineering to execute project portfolios from $100M to $550M. As usual, our NCOs are in the field, leading the way and winning the fight. Enlisted civil engineers deploy primarily as quality assurance representatives or construction representatives (see article p. 18). They spend nearly all of their time reviewing design specifications, materials, schedules, and most importantly, the actual construction.

"One of the best parts about working on outside-the- wire construction is the fact that it is the most dangerous assignment you can get within the Corps of Engineers, yet very rewarding," said TSgt Dundrae Lakes, who is deployed from Patrick AFB, Fla., as a quality assurance rep at Bagram. "The opportunity to say you had a hand in creating new roads and schools, and compounds for the Afghan army and police is extremely fulfilling."

The U.S. Air Force Corps of Engineers?

No, not yet anyway. It's still the U.S. Army Corps of Engineers, but as an indicator of the expanded Air Force role, at AED-N's Bagram Area office, at the writing of this article we have five Airmen filling all the military positions. The Air Force currently has 38 civil engineers on Corps of Engineers deployments and closely scrutinizes requirements to ensure efficient ops temps management in stressed AFSCs while staying "all in" on Operation Enduring Freedom. The Air Force Civil Engineer, Maj Gen Timothy Byers, continues to work with Army leadership to ensure that if we are supporting this mission, we are also given the opportunity to fill leadership positions within the Corps of Engineers joint command structure. We're already filling positions as area office officer-in-charge, resident engineer, and the AED-N senior enlisted advisor (see article p. 21); in the summer of 2011, an Air Force civil engineer will assume command of Afghanistan Engineer District-South, which executes all Corps of Engineers construction in Regional Commands South and West.

As more Airmen fill Corps of Engineers taskings, you may be thinking, "I hope I never get one of those." But as engineers, we feel that they are another "best kept secret" — a great opportunity for both officers and enlisted. We manage a lot of construction projects and lead people to accomplish a huge MILCON mission. For example, on Bagram there is more than $550M in ongoing construction and

(Above Top) Maj Toney Riley, OIC of the Kandahar Airfield Area Office briefs a group of customers and Corps of Engineers leadership on ongoing construction at Kandahar Airfield.

(Above Middle) Maj Chris Meeker, center, and TSgt Dundrae Lakes, right, and a Corps of Engineers Afghan Quality Assurance engineer discuss site preparation at a $19M ANA base in Parwan Province.

(Above Bottom) SSG Myron Ward, Mr. Stephen Harper, TSgt John Chacon, TSgt Jason Jenkins, and Afghan contractors commemorate the completion of a project with a group photo. (U.S. Army photos)

LtCol Pat Carley, deployed from HAF/A7CA, drinks tea and discusses construction with the Sharana Orphanage Director. (U.S. Army photo)

another $380M in FY10 and FY11 projects in the hopper. Outside the wire, the office is managing over $160M in ongoing construction and has more than $300M lined up to execute.

"I've never worked with the Corps of Engineers before, so I really didn't know what to expect," said SSgt Patrick O'Connell, deployed from Hurlburt Field as a quality assurance rep at Bagram. "But the Corps of Engineers personnel were very welcoming. It's a relaxed environment to work in, which makes things easier to get done. I have a lot of experience in repair work and new installs, but had zero experience in seeing things being constructed from the ground up. The best part of working with the Corps is the knowledge and experience that I am getting here, earning new things on a daily basis. This not only helps me at my job here, I know it will also pay dividends when I return to my home unit."

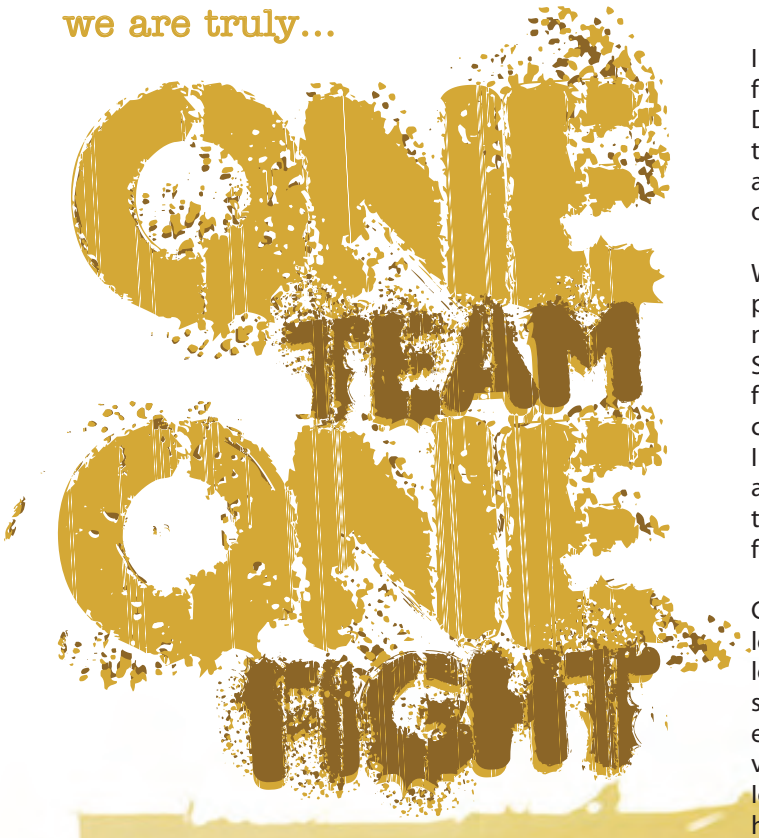
"The mission of the Corps of Engineers provides huge benefits for both the U.S. military with the on-base projects and the Afghan people with the off-base projects," said CMSgt Glenn Cimmiyotti, the NCOIC of the Bagram Area Office, who is deployed from JB McGuire-Dix-Lakehurst. "It's a big plus that you get to work with the true professionals and patriots of the Corps of Engineers civilian force."

Army engineers have a saying: "If you go to war, go with the Corps." We agree. If you are ever given the opportunity to deploy with the Corps of Engineers, jump at it!

Lt Col Sanders is deployed from JB Charleston, S.C. as the Bagram Area OIC and Maj Meeker is deployed from JB Langley-Eustis, Va., as a resident engineer in the Bagram Area Reconstruction Office, both with the U.S. Army Corps of Engineers Afghanistan Engineer District-North.

A local contractor (detailed at right) meticulously squares a door frame inside a future Afghan National Police station in Panjshir Province. (photos by TSgt Sean M. White)

...whether you work with Soldiers, Sailors, Marines, or government civilians, we are truly...



TSgt John J. Chacon
30 CES/CEOIU

I was recently assigned as a construction representative for the U.S. Army Corps of Engineers, Afghanistan Engineer District-North, working at the Asadabad Resident Office in the Kunar Province. When I received this joint expeditionary tasking with the U.S. Army Corps of Engineers, the idea of "one team, one fight," immediately came to mind.

When I arrived at my assigned location, Camp Wright, Army personnel and U.S. Army Corps of Engineer civilians took me under their wing, particularly SSG Myron Ward and Mr. Stephen Harper. With plenty of RED HORSE experience from a previous assignment, I had no issues working with contingency type construction. I knew the convoy training I received during my Prime BEEF days at my home unit and at Army Combat Skills Training would pay off, especially traveling in the notorious Kunar Province, where enemy forces still have a strong presence.

Going out on missions outside the wire was essential, allowing me to see project sites firsthand and work with the local Afghan contractors to help them resolve any construction issues. To give convoy crews a needed break, my efforts were often combined with those of the Kunar Provincial Reconstruction Team, led by the U.S. Navy, and the Iowa 734th Agri-Business Development Team, which also have missions on Camp Wright.

As a civil engineer, my main focus remained on job quality and you can definitely see a difference in quality of work when the sites are inspected on a regular basis. Part of my job was mentoring the local Afghan contractors, whether in a meeting or in the field. Of course, I faced challenges such as the differences in our technology standards and a language barrier, but I became creative on getting my point across whether I had to pick up a shovel and do a little digging or draw simple-to-understand diagrams. I did manage to pick up a few words of Pashtun and the contractors some English, which helped us with communication. Drinking a cup of tea with the contractors also helped. In Afghan culture this shows hospitality and it provided a more casual setting to develop rapport before more serious discussions. Throughout my Army skills training, I kept hearing how we should go out and win the hearts and minds of the Afghan people, and I literally saw that happening in my meetings with the contractors.

I might have been part of "one team, one fight," but from the time I was welcomed into the Corps of Engineers "family" the first week by Army Colonel Thomas Magness, the District Commander, I felt it necessary to show what Air Force civil engineers could do to make a difference in support of Operation Enduring Freedom. My construction repre-

The author works with local contractors in the Kunar Province during a site visit as a construction representative for the U.S. Army Corps of Engineers in Afghanistan. (U.S. Army photo)

sentative duties set the conditions for successful project management oversight of more than $86M dollars in reconstruction projects ranging from Afghan National Border Police Stations to constructing stretches of road traveled by coalition forces. The Corps of Engineers trusted me to make the right decisions out in the field, and I kept the Air Force core values constant in my mind to make sure that I did the right thing each and every day.

I can say that pre-deployment training and being mentally and physically prepared paid off for me. After I arrived at Camp Wright, I jumped at the opportunity to go through more training and get licensed to operate a Mine Resistant Ambush Protected (MRAP) vehicle. Any deploying airmen

SSG Myron Ward with the U.S. Army Corps of Engineers in Afghanistan, assists local contractors in cutting the ribbon for the opening of the Afghan Border Police Station, on March 7, 2011. (Photo by TSgt Jason Jenkins)

should familiarize themselves with this equipment because you never know, you may find yourself in a situation outside the wire where you have to quickly call for fire or call for a medical evacuation. If you train for these instances, you will react faster and save lives in the process.

Mentoring was also critical to my success and safety. SSG Ward had plenty of experience with convoy movements in Afghanistan so I relied heavily on his expertise for more on-the-job training and to get us out and about safely. I trusted SSG Ward and our gunner, SPC Joshua Egan, with my life when we went outside the wire and I felt the same responsibility for theirs. I also gained a great deal of respect for the Corps of Engineers civilians working in Southwest Asia. They go out on missions with the military to inspect these sites and were always willing to share their expertise. I learned a lot from them, especially Mr. Harper, and I think they learned from me as well, particularly about the Air Force and its civil engineers.

When I asked SSG Ward about his thoughts on working with Air Force civil engineers, here's what he said: "During the past year and a half, Airmen who have been assigned to the Asadabad Resident Office have brought various levels of experience and skill sets, but the main thing that has shown to be very valuable is that they have all have had previous experience serving in a contingency environment. Their knowledge of building on foreign soil in a hostile environment has been invaluable. These Airmen go the extra mile, volunteering to receive training and becoming an integral part of the MRAP team as drivers, gunners, and truck commanders. Their interpersonal skills, leadership, and knowledge show every day in the office, on the job site, and in the field."

My deployment with the Corps of Engineers in Afghanistan was a rewarding experience and I'd have to say that at the end of it, the main thing I learned is that whether you work with Soldiers, Sailors, Marines, or government civilians, we are truly "one team, one fight."

TSgt Chacon is the NCOIC for Water Fuels Systems, 30 CES, Vandenberg AFB, Calif. He was recently deployed to Southwest Asia as a construction representative for the U.S. Army Corps of Engineers.

The Afghan Border Police Station, a U.S. Army Corps of Engineers project, was built by Afghan contractors. (Photo by TSgt Jason Jenkins)

Drop by Drop

Maj Jack A. Blalock
NTM-A/CSTC-A

From an engineer's perspective, there are two major problems plaguing the transition of O&M duties to the Afghan National Security Forces. The first is hiring Afghan civilian technicians willing to work for the available pay, and the second is getting them trained. The United States has an O&M contract to maintain 4,600 facilities at 330 locations country-wide, employing more than 4,000 technicians on a budget of $800M that is supposed to last up to four years. The Afghan National Army (ANA) has only 1,100 positions (many unfilled) allocated for facility maintenance, a budget of $4M, and little expertise to carry out even the most basic tasks required of a technician. Don't stop reading here — there is hope.

General Sher Mohammad Karimi, Afghan National Army chief of general staff, shakes the hand of Maj Jack Blalock at the opening ceremony of the Afghan National Security Force Facility Engineer Technical Training School. (U.S. Air Force photo)

From March 2008 to March 2009, I was deployed to Kabul in a position to help build and mentor a civil engineer squadron with the new Afghan Air Force. While there, I saw many of the same challenges for getting qualified personnel into the shops. A plan to get a school started that would provide all the basic trade skills through a contract with the U.S. Army Corps of Engineers kept getting pushed back and I redeployed without seeing it start.

Just a year and a half later, I am back in Kabul, but this time on the staff of the Combined Joint Engineering Directorate of the NATO Training Mission-Afghanistan organization. My top priority handed to me by my predecessor: Getting a facility engineer school up and running.

This is where the hope comes in. On Jan. 23, 2011, an opening ceremony was held for the first-ever Facility Engineer Technical Training School at the ANA Construction and Property Management Department compound.

"This technical training school is a very big step towards success in the rebuilding of Afghanistan," said Brig Gen Habibullah, the ANA Chief Engineer in his speech at the opening ceremony.

With stacked Conex boxes and many meters of gravel, the school was built to house 60 students, with showers, latrines, laundry, billeting, and a dining facility. The main focus is on the ANA, but eight Afghan National Police students were enrolled as well, giving it a joint nature. The six-month class covers electrical, masonry, carpentry, HVAC, metallurgy, plumbing, and painting. In addition to the technical skills, students also take daily classes in English, Dari literacy, and basic computer skills. Those that pass a final competency exam will head back out to their region to take this knowledge and pass it on to their peers.

My old position of mentoring the ANA Civil Engineer Squadron is now held by Air Force Civil Engineer Maj Rick Fletcher who has called often to tell me his top priority is getting his shops trained. I can relate. We were able to give him only three training slots this time because we need to spread the training across the whole country. As I write this, a project is going out for bids to build a new three-story Conex building that will take the school capacity from 60 to 150, allowing a possible 300 graduates per year being pushed out to the struggling garrisons.

Students enrolled in the Facility Engineer Technical Training School's first class watch the school's ribbon-cutting ceremony. (U.S. Navy photo by MC2 Ernesto Hernandez)

During the school's opening ceremony, which was attended by the ANA Chief of General Staff, Gen Karimi, a common Afghan phrase was heard many times: "Qatra, qatra, daryaa mesha," which translates to "drop by drop a river is formed." This school is the beginning of a new river.

Maj Blalock is deployed from Ellsworth AFB, S.D., as the chief of MoD Ministerial Development, NATO Training Command Afghanistan.

CE BOLDLY GOES WHERE NO AIRMAN HAS GONE BEFORE IN KABUL DISTRICT

Mr. Paul Giblin USACE/AED-N

Air Force CMSgt Forest Lisner, a 24-year service member, spent his first several weeks in Afghanistan piloting a new course within the U.S. Army Corps of Engineers in northern Afghanistan.

CMSgt Lisner is the first noncommissioned officer outside of the Army to serve in the top enlisted spot within Afghanistan Engineer District-North. He arrived for a six-month tour in November, succeeding retiring Army Command Sgt Maj Calvin Williams.

Lisner previously served in two Army commands, including a prior attachment with the Corps of Engineers, and he's found that while some of the internal protocols and regulations differ between the Air Force and the Army, the personnel are strikingly similar. The same holds true for the Marines and Navy personnel who also work alongside one another within the command, he said.

"Once you sit down at a table and have dinner or lunch with them, you see they're no different than you. They're military people. They have a common goal," CMSgt Lisner said. "They're basically the same, but wear different uniforms."

Army Col Thomas Magness, the district commander, noted that all the military positions within the district are open to be filled by members of any service. In fact, CMSgt Lisner is just one of several Airmen in leadership positions.

"The fact is that the Air Force truly has stepped up when it's come time to source this joint command," Col Magness said. "You look at every corner of this organization where we've got military people; the Air Force is highly represented."

Col Magness looks to CMSgt Lisner to serve as the standard bearer for all the enlistees, regardless of their individual services.

"He is the senior enlisted man in this organization and he will be the one to uphold the standards, to maintain discipline, to lead by example for the rest of the enlisted ranks in this command," Col Magness said.

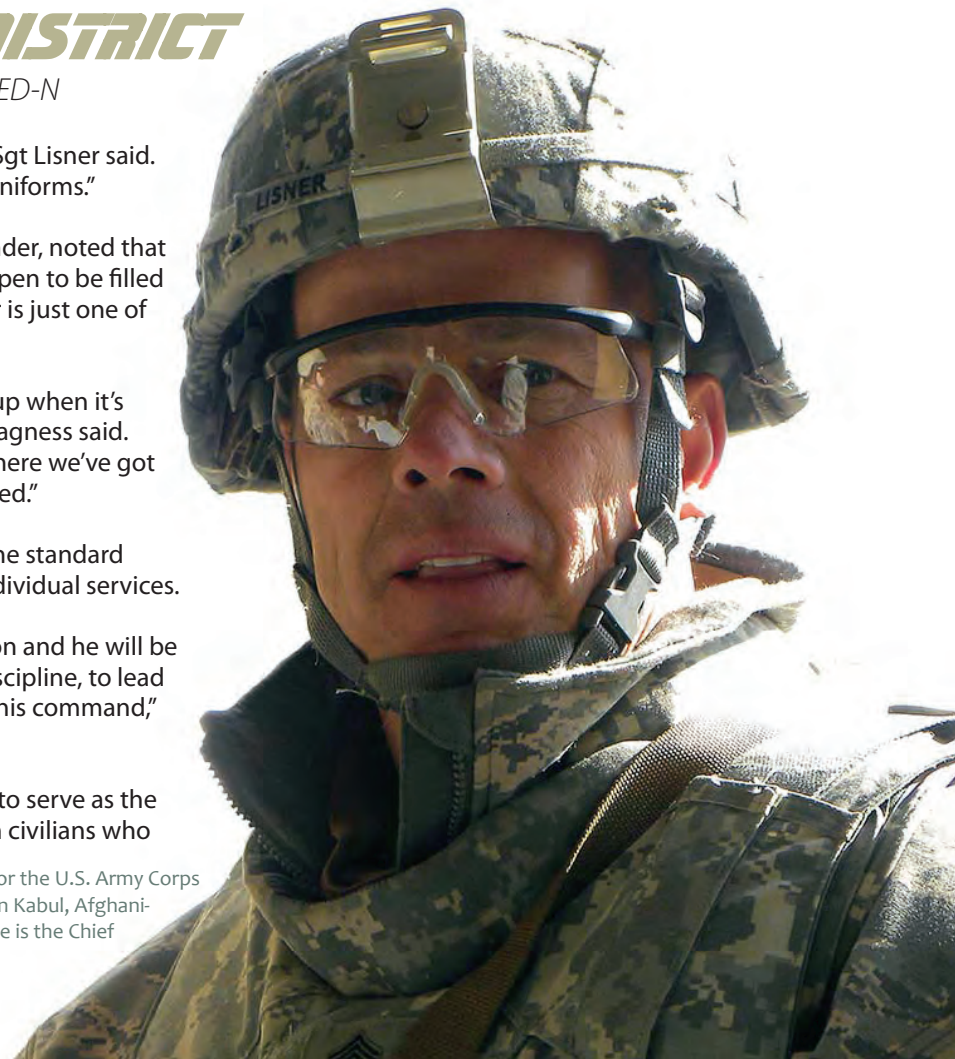
The colonel said the Chief's position allows him to serve as the point of contact for enlisted personnel and even civilians who have issues or concerns about a variety of topics. "The Chief is someone whose door is open. He's willing to listen. Maybe he can solve their problem at that level," Col Magness said.

Not coincidentally, CMSgt Lisner said he believes that one of his top responsibilities is working with the deputy commander, Army Lt Col Jon Chytka, and the civilian chief of staff, Mr. Jay Burcham, to keep matters off Col Magness' desk so that he can focus his attention on the district's primary mission of building millions of dollars worth of infrastructure projects in Afghanistan.

There are additional responsibilities, many additional responsibilities.

"At the end of the day, sometimes it's racking and stacking tasks when everything is urgent, everything is an emergency," CMSgt Lisner said. "You know what I mean by that, everything needs to be done now, but which one needs to be done more now?"

Mr. Paul Giblin is a public affairs officer for the U.S. Army Corps of Engineers, Afghanistan Engineer District-North, Kabul, Afghanistan.



CMSgt Forest Lisner is the Senior Enlisted Advisor for the U.S. Army Corps of Engineers, Afghanistan Engineer District-North, in Kabul, Afghanistan. He is deployed from Minot AFB, N.D., where he is the Chief Enlisted Manager for the 5 CES. (photo by author)

A Different Path to the Top:

A Tribute to the late Maj Gen William D. Gilbert

Dr. Ronald B. Hartzer
HQ AFCESA/CEBH

Air Force Civil Engineering recently lost one of its Founders when Maj Gen William D. Gilbert passed away. Maj Gen Gilbert served as the Director of Engineering and Services from July 1978 to August 1982 but his career path getting there took a few interesting twists and turns.

Major General William D. Gilbert, 1978

Born and raised in rural Louisiana, he was drafted into the Army during World War II and served with the Army Corps of Engineers in both North Africa and in the China/Burma/India Theater. Re-enlisting in 1946, he served as a recruiter in Texas, Alabama, and Virginia before transferring to the fledgling Air Force in 1947. The following year, he took advantage of an opportunity for a direct commission with the Air Force Reserve. During the Korean War, he was mobilized and served as a recruiting officer in northern Virginia. His next assignment was as a personnel officer at HQ USAFE from 1953 to 1957.

While in Europe, Maj Gen Gilbert became friends with several engineering officers for whom he worked assignments. One officer, Col Jim Bower, was going back to the Pentagon for an assignment and approached him with an interesting offer, "We have a personnel officer on the staff of the Installation engineers back in the Pentagon. What would you think about taking that job?" Replying, "That's fine," Maj Gen Gilbert began his connection with Air Force civil engineers and the Pentagon in 1957.

As the personnel officer and chief of the administrative branch of the Directorate of Civil Engineering under Maj Gen Augustus M. Minton, he learned about the world of civil engineering and also earned a bachelor's degree in business management at The George Washington University.

Following a short tour in Vietnam as a personnel officer, he was assigned to Davis-Monthan AFB, Ariz., to become the wing personnel officer in 1963. His life took a sudden change when the phone in his quarters rang one day at 0600 and Brig Gen William C. Bacon, the 12th Strategic Aerospace Division commander, was on the line telling him to report to his office in 30 minutes.

This is how Maj Gen Gilbert recalled that morning:

I took a quick shower, shaved, dressed, and went to his office. He looked at me and said, "You've been exposed to Civil Engineering, haven't you?" I said, "Yes, sir, I've been the personnel officer for them." He said, "Okay, as of today, you are the base civil engineer. You go up and tell Lt Col Smith that you're his replacement." That's how Smith got notice he was fired. I went out and asked Gen Bacon's secretary, "Where is civil engineering located on the base?" I hadn't been there long enough to really know where anybody was.

I finally found the office, went into Col Smith's office and said, "Col Smith, I don't know if you know this or not, but I'm your replacement." And I said, "I'm sorry, but I was directed to come and tell you." He didn't say a word. He got up, went out of the office, and left me sitting there. In about ten minutes he came back in and said, "Come with me." He led me back to the control center, opened the door, and there sat all the staff members — the officers and the civilian supervisors — and he said, "This is your new base civil engineer, Maj Gilbert." He turned around, walked out, and closed the door. I've never seen him again to this day. He just left me standing there.

This was no ordinary job; the base had just accepted the Titan II missiles while also transitioning from B-47 bombers to F-4 fighters. Six months after Maj Gen Gilbert became the BCE, the wing hosted a Strategic Air Command IG inspection. His unit not only passed, but it was the first Civil Engineering unit on a missile base to ever receive an "Excellent."

Following an assignment to Moron AB, Spain, he found himself coming full circle, assigned again to the Directorate of Civil Engineering at the Pentagon. He was the executive officer to Brig Gen Guy Goddard, the Deputy Director for Construction and later the Director.

With wife, Dottie, after receiving the Air Force Commendation Medal for his work with the engineers

Maj Gen Goddard assigned Col Gilbert as head of the Civil Engineering Center (a forerunner of AFCESA) at Wright-Patterson AFB, Ohio, in June 1971, as preparation for his assignment as the Deputy Chief of Staff (DCS) for Civil Engineering at HQ Military Airlift Command at Scott AFB, Ill. During his 16-month tour at Scott, Col Gilbert worked key projects for Gen P. K. Carlton and was promoted to brigadier general. In September 1973, he was reassigned as the DCS for Civil Engineering at PACAF.

PACAF was transitioning to a peacetime operation and found itself dramatically behind the rest of the Air Force in terms of construction and other programs to benefit its people. However, it became the second MAJCOM, behind USAFE, to implement the merger of Civil Engineering and the Services. One of Maj Gen Gilbert's most vivid memories of his time at PACAF was of watching thousands of Vietnamese refugees flow into U Tapao Royal Thai Air Base the night Saigon fell in April 1975. He led PACAF civil engineers as they mounted a heroic response to relocate and house thousands of refugees in tent cities throughout the theater.

In May 1975, Maj Gen Robert C. Thompson tapped Brig Gen Gilbert to become the Deputy Director of Engineering and Services. It was back to the Pentagon again, this time to firmly cement the merger of Engineering and Services throughout the Air Force, prepare and deliver Congressional testimony on the Military Construction Program, and oversee the burgeoning Air Force energy program.

Working closely with then Col Joseph A. "Bud" Ahearn, he helped improve the quality of life for Air Force personnel and their families, with among other things, new dormitories and dining halls. He gained an invitation to the Air Staff Board and the Air Force Council where important budgetary issues were decided and "…felt very fortunate to be able to present my case … instead of having some spokesman who knew nothing except what we had input to him about what our needs were and why."

On July 1, 1978, Maj Gen Gilbert succeeded Maj Gen Thompson as Director of Engineering and Services, with his tenure spanning part of the Carter and Reagan administrations and encountering significant changes. He directed programs of tremendous import to the Air Force and the nation, such as changing the M-X missile from a mobile deployment concept to placement in super-hardened silos. One high visibility program was the $1.1B Israeli Air Base construction program, part of the Camp David Accords. Completing the bases on time with a tight schedule and harsh conditions required active management, innovation, and teamwork with the Corps of Engineers, the contractors, and the Israeli Air Force.

He was particularly proud of successfully defending the career field against an Army-backed initiative to reduce the number of civil engineers in the Air Force by 25,000 and for keeping RED HORSE relevant by moving the 819th to the United Kingdom. And, as President of SAME, he spearheaded purchase of the national headquarters building in Alexandria, Virginia.

being promoted to colonel by Maj. Gen. Guy H. Goddard

Maj Gen Gilbert retired from active duty effective Aug. 1, 1982 and continued working in private industry until 1989. Following retirement, he and his wife, Dottie, returned to Louisiana to make their home in Bossier City, close to Barksdale AFB, family, and friends.

with eQUEST

Capt Joseph P. DiRosario
Lt Col Peter P. Feng
AFIT/ENV

Is there an energy simulation tool comprehensive enough for all building operations and engineering design specialty personnel to use, but instinctive enough for people with little to no training in the energy facility modeling field to master? The answer is "yes," depending on how detailed your needs are.

eQUEST is a fully interactive facility energy modeling freeware tool that provides building owners, operators, and designers a whole building energy performance analysis through the detailed examination of buildings as a "system of systems." As a Department of Energy-based program, eQuest was originally intended for the analysis of initial building construction alternatives during design. However, there can be value in its application in actual facility operations after construction, for commissioning and retrofitting scenarios.

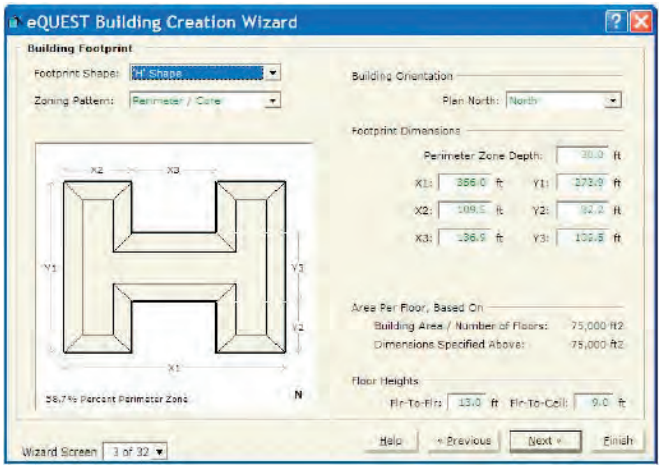


Figure 1: SD Wizard "Building Geometry Information Screen"

Wizards do the Work

eQUEST utilizes "wizards" with intelligent, dynamic "smart" defaults to speed the process of building models with limited user inputs. Users can identify and describe the principal energy-related features using the schematic design (SD) and design development (DD) wizards. The Energy Efficiency Measure (EEM) wizard evaluates building design alternatives. The SD wizard is geared to the earliest design phase, creating a single building shell that models a facility's footprint, conditioned zoning breakout, ceiling-to-floor height, building envelope, and HVAC system. The DD wizard is intended for creating a comprehensive design shell later on in the facility development process when more information is available. The design wizards include predefined generic shapes, customer user input profiles, or CAD drawing files for initial facility shell creation. Users can choose close to 60 different HVAC system types, implement analysis of high-rise designs, or provide both simplified and detailed description HVAC zone loading. eQUEST's EEM wizard allows users to test up to nine design alternatives individually or together for a better, whole building design or retrofit approach.

After developing a footprint, facility characteristics are then further defined by the following:

- Establishing HVAC zones and activity areas
- Locating and describing daylighting and skylighting features
- Tracing or drawing a roof layout with construction type
- Inputting utility costs
- Aligning window/door type materials and locations
- Determining a facility occupancy schedule with equipment breakdowns

These detailed design options bring the model closer to reality, and through simulation facility performance can be predicted. As a whole, the system performs 8,760 iterations of calculations to simulate performance of all energy flows in a building.

Case Study with eQuest: Keesler LEED Homes

Capt Sean Chun, a graduate student at the Air Force Institute of Technology, investigated potential energy savings related to a $291M MILCON housing project at Keesler AFB, Miss., which was initiated after Hurricane Katrina destroyed a majority of the base's housing in 2005. More than 1,062 residential housing units with 25 different unit types were built as part of the project, including 761 silver certified residential LEED homes. The move to include LEED certified homes increased the overall project costs by approximately $2M. According to the U.S. Green Building Council, "green" or LEED-certified facilities on average consume 26 percent less energy than non-LEED facilities.

Using eQuest for energy modeling, Capt Chun found that a Keesler Silver LEED home should average approximately 21 million kilowatt hours over the lifetime of the facility with utility bills of $2,100 per home per year. In contrast, the

total energy utilized by a comparable conventional home would average approximately 25 million kilowatt hours over the lifetime of the facility with utility bills approximating $2,300 per year. Comparing the 25 million kilowatt use to the 21 million kilowatt use over the lifetime of the facilities, we see an 18 percent energy reduction and a $200 per year per house savings.

Capt Chun's research also found that the top three factors affecting energy usage of a home are the seasonal energy efficiency ratio, or SEER, value of the air conditioning system, the number of air changes per hour, and the heating seasonal performance factor. These findings align with many research studies that indicate that HVAC options have the greatest impact on annual energy costs.

eQuest Pros, Cons, & Recommendations

Like any other software tool, eQuest has strengths and weaknesses (see below). It's important to note that other programs exist that are better suited for modeling more advanced technological systems. However, these usually require more advanced users; eQuest software has the best interface for the moderate user. One important plus is that the underlying eQUEST simulation engine supporting its operations (DOE-2.2), is well validated with research, backed by the U.S. Department of Energy, and tested according to ASHRAE Standard 140.

Air Force facility energy managers and resource efficiency managers should consider adding eQUEST to their toolbox. As a predictive modeling tool, eQuest can be used to provide insight into or even verify contractors' project suggestions or to identify issues in "problem" facilities, especially those with sub-metering. eQuest can also be utilized to calculate commercial building tax deductions under the Energy Policy Act of 2005 and Emergency Economic Stabilization Act of 2008. Any needed plans and specifications

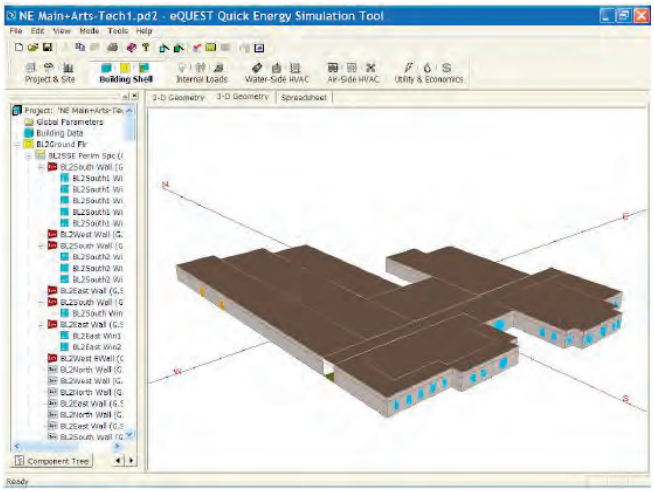


Figure 2: Building Shell 3-D Geometry Screen

are typically available onsite with the facility manager or public works office. If an energy audit has already been completed, the data requirements are even further decreased.

According to the first generation of DiRosario engineers in the Air Force, Mr. Joseph DiRosario, Director of Installation Support, 432nd Wing, Creech AFB, Nev., energy modeling provides benefits for investment that touch everyone associated with the new or renovated building:

"Energy efficient buildings are less costly to operate and generate savings that can be passed on to lessees in the form of lower rents, and then to customers doing business in the facilities. It is a win-win situation for all."

Capt DiRosario is a graduate student and Lt Col Feng is an assistant professor in the GEM Program, AFIT, Wright-Patterson AFB, Ohio.

(Story graphics provided by the author. Title graphics by Mr Eddie Green)

A New User's Take on eQUEST

STRENGTHS

- Is free to download
- Focuses on "whole-building" performance
- Simplifies exploration of the energy performance of design concepts
- Supports detailed analysis throughout design, commissioning, and post-occupancy phases of a facility's life
- Contains dynamic defaults in each interface and automated quality control checks
- Expands as necessary to handle larger scale multi-story models
- Includes weather data for over 650 U.S. locations
- Updated periodically to improve the system's mathematical model formulations and glitch issues

WEAKNESSES

- Depends upon a large initial learning curve
- Requires a great deal of data for initial baseline model development
- Needs copies of as many CAD files and project specifications as possible
- Mandates time-consuming baseline model development due to data requirements
- Employment of some of the newer technological systems cannot be modeled exactly in current versions of eQUEST
- Limits airflow patterns being modeled within zones
- Restricts ability of more complex building geometry shapes to be created
- Allows daylighting to be applied only to convex spaces
- Forces ventilation models to often be simplified and limited

A model of efficiency, innovation, and sustainability, Homestead ARB's Recycling Center is...

REACHING NEW HEIGHTS

Mr. Larry Ventura
482 MSG/CEV

Recycling has been a part of almost every installation for nearly two decades now. Although, many programs have become routine, simple operations, there are now more opportunities than ever to reduce our waste streams. At Homestead ARB, our recycling program has become a superior operation that is a model of efficiency, innovation, and environmental sustainability. The ability to tap into a unique labor pool, expert management, and "outside the box" thinking has transformed a once profitless operation into a thriving money making venture that has ultimately multiplied profits by just over 11 times since November 2007.

Reinventing Recycling

This base's program began to change in November 2007, after the recycling center moved its operation from a small building to a much larger facility that created room for operational expansion. Next, the recycling center manpower was increased. For years, Homestead ARB has participated in the daily work release program of a nearby federal correction facility. With the larger facility, the recycling center labor force was increased to 10 soon-to-be-released inmates, who arrive at the base each day and provide all the labor necessary to operate the facility. The added labor allowed for increased sorting and deconstruction of materials, which in turn helped yield better profits for the recycling operation.

The operation then began vigorously recruiting new customers into the base recycling program. For example, local U.S. Coast Guard and Army National Guard units were added as new customers. The base further partnered with a local metals recycler to take their cardboard as well. The base then established a 24-hour recycling drop-off point to make recycling easy and in so doing, increased the quantity of recyclables coming into the center.

The next step was to find ways to reduce costs while increasing profits, which is where "outside the box" thinking came into play. An innovative reuse and repair program decreased costs for the disposal of old equipment and subsequently for the purchase of new equipment. Increasing the quality of scrap items increased Qualified Recycling Program (QRP) profits from reselling the higher quality scrap items. A new product reuse area allowed for free acquisition of new and reused items. Plastics that were hauled off by a local plastics recycler for a fee are now bailed and currently sold for $20 per ton. Metals processing was revamped to more effectively clean and process metals which yielded higher returns.

We also examined the waste stream to reduce refuse to reduce the base's costs for disposal. The base initiated waste profiling, which in turn heightened awareness of hazardous waste, usable parts, recyclables, and Privacy Act and Security Information being disposed of in base refuse containers. Waste profiling results were detailed at the quarterly Environmental Safety and Occupational Health meeting, and the improper waste streams began to substantially decrease. More recently, landscape waste was also diverted from the main waste stream and is now sent to a special area of the local landfill for composting.

Mr. Tim Driscoll, Homestead's Recycling Center Manager, uses the alligator shear machine to clean copper piping. (U.S. Air Force photo)

As the program finally began to make money, we reinvested in it. We purchased a glass aggregate machine, can denser, and wire stripper. The glass aggregate machine pulverizes glass into construction fill, creating a free resource for the base, and negating previous costs associated with sending the glass to a recycler. The can denser compacts and bails aluminum cans, which increases their market value. With the wire stripper, we can extract high-grade copper, one of the more valuable and marketable items.

Marketing and Management

As with all business ventures, good marketing is essential to success. We hosted an "America Recycles Day" competition, to see who could bring in the most recyclables by weight. Information about the recycling program is now available to all personnel via a base CoP. All members of the Environmental, Safety and Occupational Health Council received 2010 planners — made from recycled material — with helpful base recycling information. We expanded the base supply store's "Environmentally Friendly Products" section, allowing government purchase card holders to easily fulfill their Green Procurement and Javits-Wagner-O'Day commitments.

The base also implemented measures designed to keep the program running as an effective business, beginning with writing a QRP Business Plan which helped define the bounds, responsibilities, and goals of the program. We established strict recordkeeping and clear communication channels and initiated training on solid waste/recycling training for new base employees and on-going training to base unit environmental coordinators and facility managers. AFI changes are also closely tracked.

Payback

The operation made a profit of $24,000 in the first year. Half of this went to the Airmen of the 482 FW via Moral, Welfare and Recreation activities at our base, which is an incentive that goes beyond all others. Just as buying new products made from recycled material closes the recycling triangle, getting funds from the sale of the recyclables to the Airmen who recycled closes the "investment" triangle.

Mr. Tim Driscoll uses the glass aggregate machine to pulverize recycled glass into pieces small enough to be reused by the base as construction fill. (U.S. Air Force photo)

The can denser used by Homestead ARB's Recycling Center compacts and bails plastic bottles and aluminum cans, which increases their market value and makes them easier to handle. (U.S. Air Force photo)

By the end of its second year, the new and improved recycling operation had not only increased Qualified Recycling Program profits by an astounding 98 percent from a 2007 baseline, but made more than $27,000 in profit despite up to an 80 percent decline in recycling commodity prices. The program also achieved a 73 percent solid waste diversion rate for the second consecutive year, an amount which exceeded the Air Force goal by 33 percent and contributed to an operational cost avoidance of $183,000. In 2009, a record $22,621 in recycling proceeds were transferred to Homestead's MWR fund. In 2010, the program donated another $7,500 to help renovate an old base facility into a new coffee house for the base populace, and then an additional $50,000 to that by the end of the year.

Into the Future

We're constantly looking for ways to further reduce waste. For example, with a grant with the Environmental Protection Agency, we partnered with the South Dade Soil and Water Conservation District to test an In-Vessel Aerobic Compost Machine, which takes consumable waste and processes it down to usable compost. All the food waste from the dining hall was added to mulch produced from exotic tree removals and put it into a composter which turned it into usable compost in five days. The machine worked as advertised, so the base may purchase one.

A robust and successful recycling program requires constant monitoring, as well as dedication and endorsement from the base populace, especially leadership. Here we'll continue to stay on top of environmental issues and find innovative ways to meet Air Force goals and keep our base "green."

Mr. Ventura is the environmental flight chief, 482 MSG, Homestead ARB, Fla.

Dyess Honors Fallen Firefighter

Amn Charles V. Rivezzo
7 BW/PA

Airmen and family members of SSgt Ray Rangel, a 7 CES fire protection craftsman, gathered December 14 at the cantonment area at Dyess AFB, Texas, for the unveiling of a sign renaming the area after the fallen hero. A formal dedication ceremony celebrating SSgt Rangel's life and commitment to Air Force core values was held at the cantonment area on February 18.

A firefighter of more than nine years, SSgt Rangel voluntarily deployed to the 380th Air Expeditionary Wing in late September 2004. He died Feb. 13, 2005, while attempting to save three Soldiers trapped in an overturned and submerged Humvee in a canal in northern Iraq.

"Ray loved his job and he died doing just that, rescuing fellow Soldiers..."

For his heroic actions, SSgt Rangel was posthumously awarded the Bronze Star Medal. Two awards have been named in honor of him: the SSgt Ray Rangel Award and the Ray Rangel Noncommissioned Officer Award, given to fellow Airmen in the 380th Air Expeditionary Wing who epitomize the selfless courage that he displayed.

The cantonment area is used to host exercises and training sessions. At the dedication ceremony, firefighters, EOD specialists, and security forces demonstrated their capabilities and fire trucks and ambulance equipment were displayed.

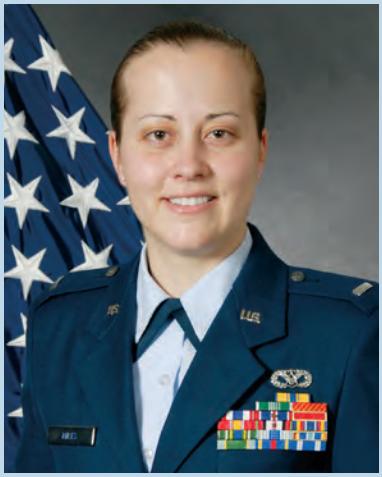
"Ray loved his job and he died doing just that, rescuing fellow Soldiers so that they could have an opportunity to continue in life," said TSgt Stephen R. Perez, a 7 CES fire inspector and long-time friend of SSgt Rangel. "Like Saint Florien, he is our protector, protecting us through our everyday operations here at Dyess' Fire and Emergency Services," he said.

Editor's note: On April 12, the memorial to SSgt Ray Rangel at Balad AB, Iraq, was officially retired. More than 60 Airmen and Soldiers at the transitioning base were in attendance. The plaque on the memorial will be shipped to SSgt Rangel's home station, Dyess AFB, Texas, for permanent display.

Dyess AFB firefighters pose by the sign designating the base's cantonment area as the Ray Rangel Air Base. The cantonment area, used to host exercises and training sessions, has been renamed in honor of Staff Sgt. Ray Rangel, a 7 CES firefighter who lost his life while on a rescue mission in Balad, Iraq. (photo by A1C Shannon Hall)

Three CEs Win Sijan Awards

The Lance P. Sijan Award annually recognizes Airmen who demonstrate outstanding leadership abilities both personally and professionally. This year, civil engineers won three of the four categories of the Sijan Award. Named in honor of the first U.S. Air Force Academy graduate to receive the Medal of Honor, the Sijan Award was first presented in 1981 and has become one of the Air Force's most prestigious awards. Below are our award-winning civil engineers and just a few of their accomplishments. (Read more about Capt Lance Sijan at http://www.cmohs.org)



1Lt Kathryn J. Miles

Junior Officer Category

While deployed to Afghanistan, 1Lt Miles was in charge of 36 projects worth more than $27M in her position as an engineer for the Panjshir Provincial Reconstruction Team, a job that required frequent travel on dangerous roads. She successfully commanded a four vehicle convoy under small arms fire for more than 50 minutes after an IED missed her vehicle by less than five meters. As the Chief of Simplified Acquisition of Base Engineer Requirements for the 56 CES, at Luke AFB, Ariz., she spearheaded the $600,000 renovation of three buildings to store classified materials and the planned demolition of more than 57,000 square feet of facilities. 1Lt Miles is now the Civil Engineer Flight Commander for the 607th Materiel Maintenance Squadron at Daegu AB, South Korea.

SMSgt Brett B. Rogers

Senior Enlisted Category

While deployed to Iraq, SMSgt Rogers led 44 personnel (24 EOD Airmen) and executed more than 300 combat missions in an area of 70,000 square miles. He directed 115 route clearance patrols that cleared 12,000 km of roadway and oversaw a program that yielded 2,000 pounds of explosives and captured eight enemy combatants. At Kirtland AFB, N.M., where he was the EOD Branch superintendent for the 377th Civil Engineer Division, SMSgt Rogers managed operations, resources, deployments, and training of 19 PRP-certified personnel and $4.2M in equipment for the 52,000-acre base. He organized the successful efforts of more than 50 responders to a WWII-era chemical bomb found on base. SMSgt Rogers is currently the 39th Explosive Ordnance Disposal Flight Superintendent, 39 CES, Incirlik AB, Turkey.

SSgt Michael J. Pereira

Junior Enlisted Category

SSgt Pereira is an EOD technician at the 96 CES, Eglin AFB, Fla. While deployed as a team leader to the most dangerous area for EOD operations in Afghanistan (his third 6-month deployment in 3.5 years), he led 65 missions, including 12 dismounted operations covering 95 km, and safely guided his team through five attacks, one a direct attack by 12 Taliban. He supervised 1,860 combat man-hours that saw the destruction of 24 IEDs (885 pounds of explosive), recovery and destruction of 278 enemy munitions (227 lbs of explosive), and travel and route clearance of 1,780 miles. He oversaw 15 IED post-blast investigations that identified two bomb makers and trained more than 800 personnel on emerging Taliban tactics, techniques, and procedures. At Eglin, SSgt Pereira recovered and disposed of hazardous and test munitions on the base's 39 range and test sites spanning 724 square miles.

Air Force Association Honors
Air Force Civil Engineer Contributions to
OPERATIONS DESERT SHIELD AND DESERT STORM

Dr. Ronald B. Hartzer
HQ AFCESA/CEBH

The Central Florida Chapter of the Air Force Association recently recognized Air Force Civil Engineers for their crucial contributions to the successful outcome of Operations DESERT SHIELD and DESERT STORM. At the organization's annual gala on February 18 in Orlando, Fla., four civil engineers were honored as AFA Ira Eaker Historical Fellows: Col Elizabeth Brown, Col Marvin Fisher (USAF, Ret.), CMSgt Thomas Gilpin, and CMSgt Carey Casey.

Col Brown, now the Air Force Associate Civil Engineer (AF/A7C), deployed to Taif AB, Saudi Arabia to provide beddown operations and was one of the few female civil engineers who deployed. Col Fisher led the operations' single largest Prime BEEF team from Shaw AFB, S.C. to Al Dhafra AB, United Arab Emirates. CMSgt Gilpin, currently with the 436th Civil Engineer Squadron, Dover AFB, Del., was responsible for demineralized water production for various aircraft and kept the system operational following a Scud attack at Riyadh with no missions lost. CMSgt Casey, now with the 49th Materiel Maintenance Squadron, Holloman AFB, N.M., built K-Span shelters as part of RED HORSE at numerous locations for ammunition storage or other types of use.

These four represented the more than 3,000 civil engineers who deployed during the operations in 1990 and 1991. The engineers bedded down 55,000 people and 1,200 aircraft at nearly 30 sites stretching from RAF Fairford, United Kingdom, across Southwest Asia, to Diego Garcia in the Indian Ocean. They erected 5,000 tents and constructed 300,000 square feet of buildings. RED HORSE members completed 25 major projects in only three months, the equivalent of three years of construction by a single squadron.

"I am very proud to represent the hard work and professionalism of Air Force Civil Engineers at this event," said Col Brown. "Although rarely in the limelight, our work is essential to generating and sustaining combat power. Recognition such as this reinforces the fact that engineers are a vital part of the Air Force team."

Mr. Tim Brock, the Air Force Gala Chairman, noted the decision to honor the engineers. "One of the Desert Storm activities that we wanted to recognize was the extraordinary work of the RED HORSE and PRIME BEEF teams to prepare for the fight. Without their support, aircrews at these bare bases could not have performed their mission."

The gala's theme was "The 20th Anniversary of Operation DESERT STORM" and was part of the AFA's annual Air Warfare Symposium and Technology Exposition. The Air Force Association is an independent, nonprofit, civilian education organization promoting public understanding of aerospace power and the pivotal role it plays in the security of the nation.

Current and Retired Air Force Civil Engineers designated as Ira Eaker Historical Fellows by the Air Force Association. L to R. Air Force Gala Chairman Mr. Tim Brock; Col. Marvin Fisher (Ret); Col. Elizabeth Brown; CMSgt Thomas Gilpin; CMSgt Carey Casey; Gen. Philip Breedlove, Vice Chief of Staff, United States Air Force; and Central Florida Chapter President William Yucuis. (Photo Courtesy of AFA)

Key Personnel Update:

During a ceremony at Randolph AFB, Texas on April 8, 2011, **Col Timothy S. Green** was officially promoted to the rank of brigadier general (effective April 1) by Maj Gen Timothy Byers, The Air Force Civil Engineer. Brig Gen Green is the Special Assistant to the Commander, United States European Command and Supreme Allied Commander, Supreme Headquarters Allied Powers Europe in Belgium.

(U.S. Air Force photo)

Mr. David J. Bek, P.E., has been named Executive Director, Headquarters Air Force Civil Engineer Support Agency, Tyndall AFB, Fla. He comes to the position from Headquarters Air Force Materiel Command, Wright-Patterson AFB, Ohio, where he was Chief, Resources and Integration Division, Communications, Installations and Mission Support Directorate. He currently serves in the Air Force Reserve as the individual mobilization augmentee to the 95th Air Base Wing commander, Edwards AFB, Calif.

Two Air Force CEs in Top 10 Federal Engineers of the Year

Two Air Force civil engineers, Maj Scott Breece, P.E., HQ USAFE, and Dr. Daryl Hammond, P.E., HQ AFCESA, were recently honored as top-ten finalists for the Federal Engineer of the Year Award. Presented by the National Society of Professional Engineers and now in its 32nd year, the award recognizes outstanding engineers employed in the federal government based on factors such as engineering achievements, education, professional and technical society activities, awards and honors, and civic and humanitarian activities. Maj Breece and Dr. Hammond were honored by the society at a luncheon on February 24, where Mr. Vincent P. Sobash, P.E., Naval Facilities Engineering Command, Washington, D.C. was announced as the 2011 Federal Engineer of the Year.

At the 2011 National Society of Professional Engineers awards ceremony, Maj Gen Timothy Byers, The Air Force Civil Engineer, presents Maj Scott Breece with a plaque honoring him as one of the Top Ten Finalists for Federal Engineer of the Year. The Air Force's other finalist, Dr. Daryl Hammond, was unable to attend. Also shown are the NSPE president, Mr. Michael Hardy, P.E. (left) and executive director, Mr. Larry Jacobson. (NSPE photo by Mr. James Tkatch, used with permission)

2010 Air Force Civil Engineer Awards

Outstanding Civil Engineer Unit
and the
Society of American Military Engineers Maj Gen Robert H. Curtin Award
Large Unit
4 CES, Seymour Johnson AFB, N.C.
673 CEG, Elmendorf AFB, Alaska

Small Unit
23 CES, Moody AFB, Ga.
2 CES, Barksdale AFB, La.

Air Reserve Component
482 CES, Homestead ARB, Fla.
158 CES, South Burlington, Vt.

Brig Gen Michael A. McAuliffe Award
(Housing Excellence)
509 CES, Whiteman AFB, Mo.
48 CES, RAF Lakenheath, United Kingdom

Maj Gen Robert C. Thompson Award
(Resources Flight)
49 CES, Holloman AFB, N.M.
47 CES, Laughlin AFB, Texas

Brig Gen Archie S. Mayes Award
(Programs Flight)
633 CES, Langley AFB, Va.
10 CES, U.S. Air Force Academy, Colo.

Maj Gen Clifton D. Wright Award
(Operations Flight)
18 CES, Kadena AB, Japan
633 CES, Langley AFB, Va.

Maj Gen Del R. Eulberg Award
(Asset Management Flight)
30 CES, Vandenberg AFB, Calif.
341 CES, Malmstrom AFB, Mont.

SMSgt Gerald J. Stryzak Award
(Explosive Ordnance Disposal Flight)
377 MSG, Kirtland AFB, N.M.
52 CES, Spangdahlem AB, Germany

Col Frederick J. Riemer Award
(Readiness and Emergency Management Flight)
Active Duty Category
87 CES, JB McGuire-Dix-Lakehurst, N.J.
5 CES, Minot AFB, N.D.

Air Reserve Component
482 CES, Homestead ARB, Fla.

Maj Gen Joseph A. Ahearn Enlisted Leadership Award
CMSgt John O'Brien,
92 CES/CEM, Fairchild AFB, Wash.
CMSgt Jeffrey K. Repass,
27 SOCES/CEX, Cannon AFB, N.M.

Maj Gen William D. Gilbert Award
(Outstanding Staff Action Officer)
Officer
Capt Ryan Walinski,
HQ ACC/A5BG, Langley AFB, Va.
Maj Brian M. George,
HQ AETC/A7COS, Randolph AFB, Texas

Enlisted
SMSgt Mark M. Garvin,
HQ AFCESA/CEOM, Tyndall AFB, Fla.
SMSgt Jamie G. Just,
HQ AFGSC, Barksdale AFB, La.

Civilian
Mr. Paul D. Cataldo,
HQ AFCENT/A7X, Shaw AFB, S.C.
Ms. Sandra K. Garrison,
HQ USAF/A7CH, Pentagon, D.C.

Harry P. Rietman Award
(Senior Civilian Manager)
Mr. Gary Gentz,
18 CES/CEOS, Kadena AB, Japan
Ms. Liesel Golden,
HQ USAF/A7CIS, Pentagon, D.C.

Maj Gen L. Dean Fox Award
(Senior Military Manager)
Lt Col Charles D. Kuhl,
52 CES/CC, Spangdahlem AB, Germany
Maj Todd T. Inouye,
HQ PACAF/A7E,
JB Pearl Harbor-Hickam, Hawaii

Maj Gen Eugene A. Lupia Award
Company Grade Officer
Capt Lorraine A. Burke,
19 CES/CEX, Little Rock, Ark.
1Lt Christopher T. Cagle,
325 CES/CEPMC, Tyndall AFB, Fla.

NCO
MSgt Vandiver K. Hood,
4 CES/CED, Seymour Johnson AFB, N.C.
SSgt Christopher M. Ferrell,
628 CES/CED, Charleston AFB, S.C.

Airman
SrA Edward J. Garwick,
56 CES/CED, Luke AFB, Ariz.
SrA Brandon P. Harrell,
96 CES/CED, Eglin AFB, Fla.

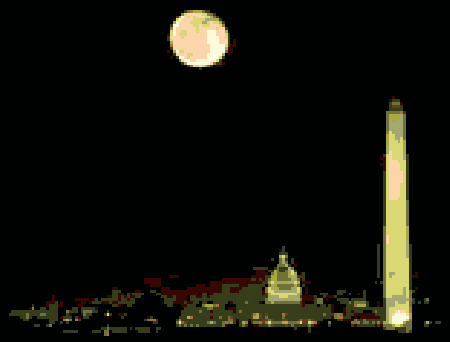
CMSgt Larry R. Daniels Award
(Military Superintendent)

SMSgt Todd S. Joiner,
316 CES, Andrews AFB, Md.
SMSgt Patrick D. Jones,
375 CES, Scott AFB, Ill.

Outstanding Civil Engineer Civilian Manager
Mr. Russell J. Hume,
10 CES/CEPM,
U.S. Air Force Academy, Colo.
Mr. Gerard J. Guajardo,
802 CES/CEO, Lackland AFB, Texas

Outstanding Civil Engineer Civilian Technician
Mr. Jason McKnight,
60 CES/CEF, Travis AFB, Calif.
Mr. Paolo Pivetta,
31 CES/CEOHG, Aviano AB, Italy

In association with the Society of American Military Engineers, the National Society of Professional Engineers, and the Northeast Chapter of the Amercan Association of Airport Executives, the Air Force recognized their 2010 Air Force civil engineer award winners with a ceremony in Washington D.C. Winners are highlighted in bold, runners-up are listed where applicable.



Outstanding Civil Engineer Manager Air Reserve Component

Officer

Lt Col Kenneth C. Evans,
HQ AFCESA, Tyndall AFB, Fla.
Lt Col Dale M. Fox,
HQ USAF/A7CAI, Pentagon, D.C.

Senior NCO

SMSgt Rolando U. Belong,
624 CES/CCQ,
JB Pearl Harbor-Hickam, Hawaii
SMSgt William A. Parker,
154 CEX/CEX,
JB Pearl Harbor-Hickam AFB, Hawaii

NCO

MSgt Glen H. Tuttle,
446 CES/CED,
Joint Base Lewis-McChord Wash.
Ssgt Joshua M. Chapman,
HQ AFCESA/CEXR , Tyndall AFB, Fla.

Outstanding Community Planner

Mr. Gene Patriarca,
HQ USAF/A7CIB, Pentagon, D.C.
Mr. Joseph B. Strasser,
86 CES/CEA, Ramstein AB, Germany

Society of American Military Engineers Newman Medal

Col Judith D. Bittick,
HQ AETC/A7CP, Randolph AFB, Texas
Col Douglas K. Tucker,
823 RHS/CC, Hurlburt Field, Fla.

Society of American Military Engineers Goddard Medal

Active Duty

SMSgt Gary L. Souder,
374 CES, Yokota AB, Japan
SMSgt David Sosa,
HQ AFCESA/CEOM, Tyndall AFB, Fla.

Air Force Reserve

MSgt Adam M. Cronk,
624 CES/CEOHR,
JB Pearl Harbor-Hickam, Hawaii

National Society of Professional Engineers Federal Engineer of the Year

Military

Maj Scott M. Breece,
HQ USAFE/A7XO,
Ramstein AB, Germany

Civilian

Dr. Daryl I. Hammond,
HQ AFCESA/CEOA, Tyndall AFB, Fla.

Maj Gen Augustus M. Minton Award

(Outstanding *Air Force Civil Engineer* Article)

1Lt Carlos R. Nixon,
36 CES/CECB, Andersen AFB, Guam
Capt Benjamin E. Carlson,
HQ USAFE/CEP, Spangdahlem AB, Germany

Air Force Energy Conservation Award

Individual

Mr. George T. Denslow,
7 CES/CEO, Dyess AFB, Texas
Mr. John E. Kain,
HQ AETC/A7COE, Randolph AFB, Texas

Team

Edwards AFB CE Energy Team,
95 ABW/CE, Edwards AFB, Calif.
21 CES, Peterson AFB, Colo.

Balchen/Post Award

(Snow and Ice Removal)

436 CES, Dover AFB, Del.
28 CES, Ellsworth AFB, S.D.

Bulldog Award

Col David Maharrey
96 CEG/CC, Eglin AFB, Fla.

Air Force General Thomas D. White Environmental Awards

Environmental Quality Award, Industrial Installation

78 CEG, Robins AFB, Ga.

Environmental Quality Award, Overseas Installation

718 CES/CEAN,
Kadena AB, Japan

Environmental Quality Award, Air Reserve Component

482 MSG/CEV,
Homestead ARB, Fla.

Cultural Resources Management Award, Team

96 CEG/CEV, Eglin AFB, Fla.

Cultural Resources Management Award, Installation

88 ABW/CEAN,
Wright-Patterson AFB, Ohio

Natural Resources Conservation Installation Award, Large Category

96 CEG/CEV, Eglin AFB, Fla.

National Environmental Policy Act Team Award

1 SOCES/CEA, Hurlburt Field, Fla.

Environmental Restoration Award, Installation

45 CES/CEA, Patrick AFB, Fla.

Sustainability Award, Non-Industrial Installation

10 CES/CC,
U.S. Air Force Academy, Colo.

Sustainability Award, Team

1 SOCES/CEA,
Hurlburt Field, Fla.

SATELLITE SEMINARS

BRING THE CIVIL ENGINEER SCHOOL TO YOU

Capt Timothy D. Scheffler, P.E.
AFIT/CES

The Civil Engineer School at the Air Force Institute of Technology (AFIT) has a variety of resources available to help meet the civil engineer community's education and training requirements. Recently, the School used one of these resources — satellite broadcasts — to get expert knowledge to 1,134 students at more than 60 sites across the country.

At the two 1-day satellite seminars on the topic of electrical safety program management and requirements, experts from AFCESA led the course instruction. Dr. Daryl Hammond, the Air Force electrical SME, and SMSgt Gary Szekely, the Career Field Manager for Air Force electricians led the seminar, while Maj Jon Gray and Capt Tim Scheffler, electrical engineering instructors at AFIT, provided additional support.

The seminar focused on the dangers associated with electrical work, especially arc flash and shock hazards, and how best to mitigate or remove those threats, as well as what and when personal protective equipment would be appropriate or necessary. Dr. Hammond explained recently revised guidance and requirements in Unified Facilities Criteria, Air Force Instructions, and engineering technical letters, known to most as UFCs, AFIs, and ETLs. He also addressed proper and improper electrical infrastructure maintenance and construction while discussing some common problems he has seen at several bases. SMSgt Szekely discussed military requirements as they relate to guidance and gave a historical synopsis of arc flash–related incidents within the career field.

Just like a regular classroom, the satellite delivery allows for real-time communication through email, fax, or two-way audio, and each day ended with a question and answer session. This communication was invaluable to students and instructors both. It ensured that technicians, engineers, and safety specialists understood the information they needed to do the jobs safely and properly and gave the instructors feedback on how to best get the information to the career field. This was especially important to Dr. Hammond, who sets the safety policy and work procedures.

There were several benefits to using satellite broadcasts for this and other classes. A recording of the broadcast will be put on DVDs for distribution to those unable to attend or to be used as refresher training. The training had minimal impact on operations because students didn't have far to travel to reach their education centers and shops had the flexibility of letting half of their personnel attend one day and the other half attend the next.

JUST LIKE A REGULAR CLASSROOM, THE SATELLITE DELIVERY ALLOWS FOR REAL-TIME COMMUNICATION THROUGH EMAIL, FAX, OR TWO-WAY AUDIO....

Satellite broadcast over the Air Technology Network is a versatile technique to reach large dispersed audiences and is available through The Civil Engineer School. For more information on this service, or the other services and courses The Civil Engineer School offers, visit the website at http://www.afit.edu/cess/ or contact the author at timothy.scheffler@afit.edu.

Capt Scheffler is the electrical engineering instructor at The Civil Engineer School, AFIT, Wright-Patterson AFB, Ohio.

AFIT's recent satellite seminar on electrical safety program management was an opportunity for Air Force electrical experts to emphasize the use of proper techniques and equipment to safely perform tasks such as the operation of an above-ground medium-voltage switch.
(U.S. Air Force photo)

AFIT Course Schedule

AIR FORCE INSTITUTE OF TECHNOLOGY

Course*	Title	Session	Start Date	End Date	Enrollment Opens	Enrollment Closes
WENV 417 (R)	Environmental Restoration Project Mgmt	11A	02-May	06-May	01-Feb	18-Apr
WENV 521(R)	Hazardous Waste Mgmt	11B	02-May	06-May	01-Feb	18-Apr
WMGT 101 (R)	Air Force CE Basic	11B	02-May	18-Jun	01-Feb	18-Apr
WENV 020 (S)	ESOH Compliance Assess-ments	11B	09-May	12-May	08-Feb	14-Apr
WENG 571 (R)	Electrical Power Systems Design	11A	16-May	20-May	15-Feb	02-May
WENV 541 (R)**	Water Quality Mgmt Course	11A	16-May	20-May	15-Feb	02-May
WENV 532 (R)	Advanced Air Quality Mgmt	11A	23-May	27-May	22-Feb	09-May
WENG 520 (W)	Comprehensive Planning Development	11B	31-May	17-Jun	02-Mar	17-May
WENV 160 (R)	Qualified Recycling Program Mgmt	11B	06-Jun	10-Jun	08-Mar	23-May
WENV 175 (D)	Environmental Mgmt in De-ployed Locations	11F	06-Jun	10-Jun	08-Mar	23-May
WMGT 570 (R)	CE Superintendent	11C	06-Jun	17-Jun	08-Mar	23-May
WMGT 590 (R)	Joint Engineer Operations Course (JEOC)	11C	13-Jun	17-Jun	15-Mar	30-May
WENV 220 (S)	Unit Environmental Coor-dinator	11C	20-Jun	24-Jun	22-Mar	24-May
WMGT 585 (R)	Contingency Engineer Com-mand	11B	20-Jun	24-Jun	22-Mar	06-Jun
WMGT 423 (S)	Project Programming	11C	20-Jun	30-Jun	22-Mar	26-May
WMGT 426 (S)	SABER Mgmt	11B	27-Jun	29-Jun	29-Mar	02-Jun
WENG 460 (W)	Intro to Mechanical Systems	11D	01-Jul	30-Sep	02-Apr	17-Jun
WENG 520 (R)	Comprehensive Planning Development	11B	11-Jul	15-Jul	12-Apr	27-Jun
WENG 561 (R)	HVAC Analysis & Design	11A	11-Jul	15-Jul	12-Apr	27-Jun
WENV 101 (R)	Intro to Environmental Mgmt	11B	11-Jul	15-Jul	12-Apr	27-Jun
WMGT 580 (R)	CE Mid-Level Development	11B	11-Jul	15-Jul	12-Apr	27-Jun
WMGT 421 (S)	Contracting for Civil Engi-neering	11B	11-Jul	22-Jul	12-Apr	16-Jun
WENG 464 (R)	Energy Mgmt Technology	11B	18-Jul	22-Jul	19-Apr	04-Jul

*(R)= Resident; (W)= Web; (S)= Satellite; (D)= DVD **ISEERB approved for all DOD Components

Students can apply online at The Civil Engineer School web site: http://www.afit.edu/CESS/

Enrollment opens 90 days prior to class start. Resident, web and DVD courses will remain open until two weeks prior to class start; satellite courses will remain open until 25 days prior to class start. For questions, email the schoolhouse at cess@afit.edu

CEs respond to disaster in Japan

On March 11, an 8.9 magnitude earthquake hit 100 miles off the coast of northern Japan and triggered a massive tsunami that devastated the country's coastal region. With reports of 10,000 killed and 17,500 missing both events are possibly the worst natural disasters in the recorded history of Japan. Misawa AB reported some structural damage and loss of commercial power; no injuries occurred at Misawa AB or Yokota AB. Air Force civil engineers in Japan and at HQ PACAF in Hawaii, immediately began support for recovery and relief efforts. The next issue of CE Magazine will have more information on CE support to Operation Tomodachi, the combined humanitarian relief effort between American forces and Japanese officials.

SSgt Matthew Nelson, 35th CES, starts a water pump to get water out of the steam lines that collected as a result of power loss from the earthquake. (photo by SSgt April Quintanilla)

Civil and bioenvironmental engineers on Yokota's Contamination Avoidance Team screen aircraft and aircrew members returning from a flight to Northern Japan. (photo by SSgt Samuel Morse)

RED HORSE CEs work with other U.S. service members assisting in tsunami cleanup and relief efforts in the village of Noda Mura as part of Operation Tomodachi. (photo by SrA Joe McFadden)

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