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Clearing the Jungles of Panama

The Civil Engineer - United States Air Force

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FROM THE TOP

Looking to the New Millennium

Expectations of civil engineers are huge. Commanders believe we can do anything — from base appearance, utilities, environmental and housing management to force beddown, runway construction and repair, explosive ordnance disposal, fire protection and so on. And we can. Our record of mission accomplishment is excellent. We have answered the call in the continental U.S., Europe, Southwest Asia and throughout the world. Civil engineers — military and civilian, active duty, Guard and Reserve, and our contractor partners — are an integral part of the Air Force team.

My priority as The Civil Engineer is to make sure that civil engineers satisfy the needs of the Air Force. We must keep pace with a changing Air Force, a changing world, and a seemingly endless array of new and emerging challenges.

Clearly at the top of the list of those challenges is the ability to rapidly respond to a variety of contingencies, from humanitarian civic assistance exercises such as New Horizons to major contingencies like Operation Allied Force. These operations will provide a true test, not only for civil engineers, but for the Aerospace Expeditionary Force concept in total. I firmly believe we're up to the test. While the early stages of implementation may be rough, I'm confident that as the concept matures we'll make it work and work well.

As you know, for more than a decade we've used Readiness Challenge to showcase our Civil Engineer, Services, Chaplain and Public Affairs abilities to perform in a contingency situation while providing an opportunity for friendly competition. I'm pleased to announce that Readiness Challenge VII is on again for this spring. The competition is scheduled for April 30 through May 4, with the awards ceremony on May 5. Not only will U.S. Air Force teams compete, we hope to have teams from several other nations on hand as well.

Two articles in this issue of *The CE* concern career management. One is on the benefits of career planning for civilians and the other is on the importance of mentoring. I encourage you to take an active part in charting your Air Force career. Examine your career path and seek advice from your supervisors. For those in leadership positions, be good mentors by sharing your wisdom and experience while providing sound advice. Be available and approachable, and above all be candid with your subordinates.

We have ambitious goals and we're facing our challenges head-on. I'm very aware of civil engineer concerns regarding competitive sourcing and privatization, personnel tempo, and so on. Be assured that Air Force leadership is working these issues and that there are many initiatives underway to ensure we're on the right path in terms of taking care of our people, assuring readiness, and earning the best return on every dollar spent. Above all, remain optimistic. This is a great time to be in the Air Force.

Finally, remember that in civil engineering we don't operate for our own sake. We exist to serve the Air Force mission. So don't get trapped thinking small or concentrating only on "what's best for me." Our profession is not "civil engineer" — our profession is "Air Force officer, NCO, airman or civilian."

I am honored to be in this office. I will use this page to keep you updated on current projects and initiatives, and to encourage you to keep operating effectively and training hard.



Brig Gen Earnest O. Robbins II
The Air Force Civil Engineer

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Brig Gen Earnest O. Robbins II

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A1C Michael Brison, 347th CES/CED, and SrA Susan Nichols, 1 CES/CED, prepare BDUs (bomb dummy units), 20 mm and 40 mm ordnance for demolition in the jungles of Panama. Story page 10. (Photo by SrA Ben Aster)

Brig Gen Earnest O. Robbins II took office as The Air Force Civil Engineer on July 26. General Robbins brings nearly 30 years of Air Force civil engineering experience to the job, including positions as The Civil Engineer at both Air Combat Command and Air Force Space Command, and as base civil engineer for the 52nd Fighter Wing at Spangdahlem Air Base, Germany. As The Air Force Civil Engineer, he is committed to ensuring our civil engineer force is ...

Relevant, Right-Sized and Ready

An interview with The Air Force Civil Engineer, Brig Gen Earnest O. Robbins II.

The CE: How will you define the Office of The Civil Engineer? What are your priorities as you begin your tour?

Brig Gen Robbins: General Gene Lupia pointed out at his going away party that I was the 20th person to hold this office. The 19 people who preceded me did a really good job of defining what this office is all about — support to the Air Force mission.

I've worked directly for seven of my predecessors and I've been in the Air Force through the regimes of 11 of them. I think the way they defined the job of The Civil Engineer is timeless — this office is about supporting the mission ... always has been, always will be.

As far as my priorities, I'm going to keep them pretty simple — to support our Air Force leadership.

In my previous job at Air Combat Command, we established a team to look at RED HORSE, to make sure RED HORSE had the right shape and the right substance going into the next millennium. I wanted this study to ensure RED HORSE is relevant, right-sized and ready as we move into the next 10 or 15 years. I think we need to expand this look across all of civil engineering to ensure our entire CE "family" is relevant, right-sized and ready to support our Air Force and the nation.

The reason we want to do this, of course, is to support the vision and initiatives set by our civilian leaders and the Chief of Staff. If we're successful — if we make sure we're relevant, right-sized and ready — then I think we'll have our plate full in terms of applying the resources we have at our disposal across all the different programs we manage.

Whether we're talking about military construction execution, an environmental program, or making sure our enlisted personnel get the right type of training, those "three R's" provide excellent filters through which we can evaluate where and how civil engineers will fit into the Air Force of the future.

So my priorities are pretty simple. Although it violates the Squadron Officer's School precept that you have to have three main points — I've got two. Those two are: support our Air Force leadership and make sure we are relevant, right-sized and ready.

The CE: What would you like Air Force CEs to know about you, as their new director?

Brig Gen Robbins: I'm not so interested or concerned about what they know about me, personally, but I want every Air Force civil engineer to know and be confident in the fact that this staff, and by extension, the folks at AFCESA and at AFCEE, are all working very hard to make sure they (the folks in the field) have what they need to get their job done.

I know the farther away one gets from the flagpole here in Washington, the less obvious that might become. Sometimes, particularly if you're an airman, a young officer, or a civilian new to our business at base-level, perhaps you wonder if we're all really marching to the same drummer. Except for the degrees of difficulty and the technical nature of what we do, the answer should always be "yes." We're all marching to the same drumbeat. I want everyone in the field to know that. I don't want them to feel like we are disconnected from their concerns.

The second thing is, I want to make sure the field doesn't believe we have a dozen ready-made stamps up here that say "No" on them for every one stamp we have that says "Yes." I'm not implying that perception exists here or in the field, I just believe that sometimes if you're in a major command, or particularly if you're at base-level, you can get preoccupied with the things headquarters says you can't do, as opposed to the things you can do. Our direction here will be to try and find ways to say yes to the requirements and proposals that come to us from the field.

The CE: You've said in some ways base civil engineers have the hardest job in the Air Force. What are the major challenges facing Air Force civil engineering today, as we prepare to go into the next century?

Brig Gen Robbins: First, I don't want to upset anybody who's not in Air Force civil engineering, but I do believe being a civil engineer, whether you're a base civil engineer or someone working in a CE squadron, has got to be one of the toughest jobs in the Air Force.

This belief is based on several things. First of all, 15 to 20 years ago the Air Force decided quality facilities were important to the Air Force mission. That wasn't a frivolous decision based on "we ought to look good," but an honest acknowledgement that there's a link between providing a nice, efficient, quality place to work and what comes out the other end in the way of combat capability.

Since then we've seen declines in budgets and in people, but we have seen no decline in commanders' expectations. Commanders still expect us not only to keep the base looking good, but also to ensure it operates the way they know an Air Force base is supposed to operate.

So the base civil engineer, in particular, is caught between a rock and a hard place — between fiscal reality and commanders' expectations. In my mind, that makes it extremely difficult for a base civil engineer and his or her work force. And it doesn't appear to be getting any easier.

By extension, I'd like to talk a little bit about this change in outlook toward quality facilities. In the mid-1980s, the Air Force perspective of "quality of life" was extended beyond just dormitories, child development centers, and physical fitness facilities. In Tactical Air Command, in particular, it was recognized that quality of life extended into the workplace and had an important impact on readiness.

Now, take an airman whose job is to maintain an F-15 engine and who's working in a hangar where the roof leaks. Every time it rains hard he or she is distracted from fixing the

F-15 engine while they move buckets around to catch the water. Is there a quality of life implication? I'd say there is.

For that same aircraft mechanic, let's say the first time his or her F-15 taxis out onto the ramp it ingests a piece of concrete from a deteriorating slab. That piece of concrete "FODs" the engine, so that perfect jet engine, which the mechanic spent so much time and effort on, now has to go back to the depot for a complete overhaul. Does that affect the mechanic's quality of life? I suggest it does.

As a third example, that same airman, the highly trained jet engine mechanic, joins with a couple hundred of his or her best friends every work day to do what we fondly refer to as a "FOD walk." For an hour out of the work day, they all march down the ramp in a straight line, looking for random pieces of concrete or joint sealant, etc. I suggest our airmen see that as a direct impact on quality of life, even though at the end of the workday they go back to one of the best dormitories in the Department of Defense and en route eat dinner in a wonderful dining facility. That demonstrates the extension of quality of life into the working environment, and I think we're losing the battle to maintain the high standards we've come to expect.

So a challenge facing civil engineers today is to operate and maintain their bases so the mission is fully supported and quality of life is what it should be, at a time when resources have gone dramatically downward. At the same time they must deal with recruiting and retention problems, PERSTEMPO (personnel tempo) concerns, training shortfalls, and on and on and on.

We civil engineers certainly aren't alone in facing these problems. We have an officer shortfall that is directly related to the pilot shortage. This lack of one or two authorized officers within the civil engineer squadron obviously has an impact on the squadron's ability to get the job done, since most squadrons have only about 10 officers authorized.

Another challenge is the legitimate concern many in our workforce, in particular our civilians, feel in regard to competitive sourcing and privatization. There's a lot of mythology out there about how far this is going to extend and what the impact will be on the individual. Our base civil engineers must contend with that every day, even at bases where the issue of competitive sourcing and privatization is not an

immediate issue ... our people are understandably uneasy about the "possibility" of outsourcing.

As a last example of the challenges we face, there is the whole issue of getting our people adequately trained to do their job. This primarily involves the enlisted ranks. There is still a widespread concern in our squadrons about receiving people



Gen Robbins addresses Air Force Civil Engineer Support Agency personnel at Tyndall AFB, Fla. (Photo courtesy HQ AFCESA)

who are not trained to a level where they can immediately step into a job and perform. There's an awful lot of time and effort expended by our mid-grade NCOs and civilians in training these young airmen as they come into the squadron, creating yet another pressure and another distraction for CEs while they're trying to get their job done.

There may be tougher jobs than our base civil engineering squadrons are performing — I've just not seen one.

The CE: As former command civil engineer for Air Combat Command, what is the latest on a possible reengineering of the RED HORSE structure?

Brig Gen Robbins: There have actually been two things going on with RED HORSE, one of which is basically completed. We approved a structural change in the units so they are now operating under what's called a "hub and spoke" alignment. Under this alignment, they operate from a central location, but work simultaneously at several different locations. We tested this in Albania during the Kosovo crisis, and it worked very, very well.

The second initiative goes back to what I mentioned previously, the study I commissioned while at ACC to look at RED HORSE and ensure it's relevant, it's right-sized and organized correctly, and it's ready for the next 10 to 15 years.

That study, when I left ACC a month ago, was about 85 percent complete. I insisted it not be rushed to completion because I wanted it to be done correctly. Col Frank Destadio, my successor at ACC, will bring this initiative to closure.

The initial recommendations I reviewed had implications for how we equip, train and organize RED HORSE squadrons. These recommendations will go to the CE Readiness Board and the Readiness Council, and be discussed within CE channels. Before we make any dramatic changes in RED HORSE, we'll have to get buy-in from the people whom we support with RED HORSE, namely the major command commanders, theater commanders, Air Force leadership, and so forth.

I don't anticipate any short-term, dramatic change in RED HORSE. This is a long-term look and we want to make sure we get it right.

The CE: Are any other CE fields being examined for possible restructuring?

Brig Gen Robbins: Not directly. There is talk of a reengineering of all functional areas within the Air Force, so we will participate in that. I haven't been in this office long enough, quite frankly, to learn the details of how this will unfold. I understand the implementation timetable is spread over several years. But I frankly don't know how it will impact civil engineering.

The CE: How do you anticipate the Expeditionary Aerospace Force (EAF) will affect operations in base-level CE squadrons? What does CE bring to the fight?

Brig Gen Robbins: EAF is definitely going to impact most civil engineer squadrons in the Air Force. I suppose it won't affect

all of them, but it certainly will have consequences for those where we maintain a Prime BEEF mission, and it will affect RED HORSE.

While at ACC, I was heavily engaged in the way combat support units were going to be utilized and tasked in the EAF. Col Scott Borges was my point man on that issue. He worked with the XO community to ensure not just civil engineering but the rest of the agile combat support components of our Air Force were given due consideration as to the unique aspects of integrating all support functions in the EAF.

EAF is, in my mind, a good thing for the individual airman, NCO or officer. When implemented, it will give individuals a much better feel for how vulnerable they are to be tasked to go TDY at any given time. This will, in turn, allow them to better schedule their personal and professional lives, whether it be pursuing a degree, scheduling annual leave, or just having a much better handle on when they're likely to be called to go somewhere.

Under the previous system you were basically on-call 365 days a year. I think the improved predictability will be very important and will help address some of the retention issues we face due to instability in our PERSTEMPO. Now, barring a major contingency, you will know when you are vulnerable.

It's also good for commanders. Commanders will now know when their units are expected to deploy. EAF is going to bring predictability to the entire schedule of events for a wing — in terms of when they are vulnerable for an inspection, when they are vulnerable to deploy, and when they have time to train. So, from both an individual perspective and from an organizational perspective, I think EAF will be good.

Will there be an impact on civil engineering? Yes. That's because it was recognized early on that civil engineers are integral to any EAF. Each Aerospace Expeditionary Force (AEF) will have available somewhere in the vicinity of 1,000 to 1,100 civil engineers. They'll be spread out over a variety of bases. Some will deploy and some won't, but those who are "on the bubble" will have a pretty good idea of when and where they're most likely to be deployed.

Tied to deployments is what's referred to as the "steady-state requirement." This refers to manpower required to support on-going missions at places like Prince Sultan Air Base in Saudi Arabia and Al Jaber in Kuwait.

We have permanent presence at those locations, and a relatively constant number of civil engineers are required there 365 days a year. Some wings, some civil engineer squadrons, will definitely deploy to support those installations for the 90 days they are in the AEF bubble. The good news is, they'll know ahead of time. It won't be done through the old "Palace Tenure" process, so there'll be predictability.

Finally, we're providing some relief to the home-station workload as a consequence of all these deployments. The Chief of Staff acknowledged about a year ago that when units like civil engineers, security forces, and communications deploy from home station there is a "hole" left behind; there's a void left in the squadron back home that still has to support that base. So the Air Force approved what is known as the EAF backfill, which is 5,000-plus total positions, all of them military,

and civil engineering is getting about 1,100 of them.

These backfill positions will be primarily allocated across those wings that will be tasked to support steady-state requirements. The additive manpower positions will appear on unit manning documents over the next three years.

Let's say Moody Air Force Base deploys 60 civil engineers to Saudi Arabia. Their unit manning document will be plussed-up some amount — not the full 60, but some amount to help mitigate the problem created when those 60 folks deploy. That's a good deal.

A very important key to EAF working for civil engineers is the integration of the Air National Guard and Air Force Reserve Command into the cycle. The Guard and Reserve components have stated they will accept about 10 percent of the total EAF deployment requirement, not just in civil engineering, but across the board.

Col Sam Lundgren at the Guard and Col John Mogge at AFRC are working very hard to develop the schedule so that approximately 10 percent of the total deployment within civil engineering will be filled by Guard and Reserve personnel. This is great news to the active duty side because that's 10 percent we won't have to pull from active duty forces. It's also proof positive that the term "Total Force" is a reality in our Air Force.

The CE: Coming from an operational command, what is your assessment of how CE support to operators measured up during the Kosovo crisis? In what areas did CE do particularly well? Where do you see opportunities for improvement?

Brig Gen Robbins: I believe Kosovo was a great test for both our Prime BEEF and RED HORSE people. Once again, we came through in spades. By all accounts, commanders recognized the superb performance of our troops, as once again we proved the importance of civil engineers to the expeditionary concept.

More than 740 civil engineers were in theater during the crisis. Col Glenn Haggstrom, the USAFE Civil Engineer, had an excellent command and control process to handle multiple challenges throughout the theater. Civil engineers expanded taxiways and aprons, built roads, established utilities, and so on.

Brig Gen Earnest O. Robbins II entered the Air Force through the Reserve Officer Training Corps program in 1969 after graduating with a B.S. in civil engineering from the University of Kentucky. His first assignments were as project officer at Headquarters Aeronautical Systems Division, Wright-Patterson Air Force Base, Ohio, and as chief of construction management for the 6200th Civil Engineering Squadron, Clark Air Base, Philippines.

After earning an M.S. degree in civil engineering from Arizona State University, he went on to assignments with the 388th CES, Korat Royal Thai AFB, Thailand; Headquarters Strategic Air Command, Offutt AFB, Neb.; the Air Force Engineering and Services Center, Tyndall AFB, Fla.; and the Directorate of Engineering and Services, Headquarters U.S. Air Force, Washington D.C.

After graduating from Air Command and Staff College in 1983, Gen Robbins served as the executive officer to then director of engineering and services, Maj Gen Clifton D. Wright, Jr.

His next position was as base civil engineer and commander, 52nd Civil Engineering Squadron, Spangdahlem Air Base, West Germany, before being called back to the Air Force Engineering and Services Center to serve as director of operations and maintenance.

In 1990, he was assigned to Langley AFB, Va., as director of environmental programs at Headquarters Tactical Air Command, followed by a position as director of plans and programs at the Office of The Civil Engineer, Headquarters U.S. Air Force.

Gen Robbins then held two different command civil engineer positions, first at Headquarters Air Force Space Command, Peterson AFB, Colo., and then at Headquarters Air Combat Command, Langley AFB, Va., before becoming The Air Force Civil Engineer in July 1999. Gen Robbins is a major general selectee.

We used the Air Force Contract Augmentation Program, AFCAP, to build refugee camps. Development was slow going at first as the standards for humanitarian relief were defined and host nation agreement for camp locations was obtained, but overall the project was a success. AFCAP contractors provided shelter for 3,000 refugees, with an overall capacity for 18,000, when the peace agreement was negotiated.

As with every undertaking, there are always opportunities for improvement. We'll have a lessons learned package after the CE Readiness Panels and Board meetings in September.

The CE: With competitive sourcing and privatization of utilities, housing and other base functions, how much of our work force do we stand to lose? How can civil engineering counteract that loss and what effect will this have on Air Force readiness in the long run?

Brig Gen Robbins: As I stated previously, this is one of the biggest challenges facing civil engineers today — the fact that there is so much mythology and legitimate concern, particularly on the part of our

civilian workforce but spreading to our military, about the impacts of competitive sourcing and privatization on the future of our career field.

I think this is one of those instances where the mythology expands as time goes on. I've heard everything from, "General, is it true that civil engineering is going to all be contracted out?" to people believing that somebody is going to come around with pink slips next week and tell them they no longer



Gen Robbins visited the New Horizons-Bolivia '99 team June 29. Lt Col Sean Saltzman (left), and Maj Christopher Pollard, the commander and deputy commander of the Combined Task Force for the exercise, greeted him upon his arrival. New Horizons '99 is a series of exercises designed to build military partnerships and improve the quality of life for people in South America, Central America and the Caribbean. Story page 26. (Photo by TSgt Scott Wagers)

have a place in our Air Force. That obviously is not the way the competitive sourcing and privatization initiative is being implemented.

The first point to remember is that both competitive sourcing and privatization are driven by economics. They are driven by the fact that DoD has to reduce the cost of doing business. It is accepted as a fact that you can do certain processes cheaper by, first of all, eliminating the military component and doing the job with civilians, and then perhaps doing it with a contractor. The process by which we determine this is the cost comparison study, the A-76 study.

All functional areas in the Air Force were asked to offer up candidates to be considered in this process, and there were very definite criteria used in deciding which positions to cost compare.

The first step is to determine if a position is military-essential. If it is not military-essential, then is it inherently governmental? If it is not inherently governmental then, by implication, it should be looked at for the potential to do it more economically by contract.

That's a simplification of the process by which our positions are being studied, but it pretty well captures it. The key thing to remember is we are looking for the most efficient organization, and efficiency is defined pretty much by economics. Given the state of the Air Force budget, I think one can easily realize we must determine a less expensive way to do our mission. It's hard to argue on an emotional basis that we shouldn't be doing this.

We have 10,433 positions that are candidates for

competitive sourcing — 17 percent of the CE population. When all the cost comparison studies are completed, we most surely will have fewer people on the government payroll, however, the essential work will still be done — perhaps by contractors or perhaps by fewer government employees.

Going back to the initial criteria, whether or not we make a position eligible for competitive sourcing or privatization, the first question we ask is, "Does it impact readiness?" If it impacts readiness and it requires a military person to do it, then the position isn't cost-compared. That's why in ACC very little competitive sourcing and privatization of civil engineering functions will be done. Their Prime BEEF capability will be maintained to the full extent required to support the Theater CINCs, and that's true in every other major command.

The CE: What do you see on the horizon for the military construction program?

Brig Gen Robbins: From the meetings I've been to during the four weeks I've been in this job, the military construction horizon looks pretty bleak. The Air Force has more bills to pay than it has dollars to pay them. One of the sources of funds to help pay those bills is going to be the military construction program.

I can't tell you yet how bad the damage will be, but I will tell you from a CE perspective it's not a pretty picture. We're going to have to wait for the corporate process to work, and at the end we'll find out what happens in the FY01-05 MILCON program.

The CE: Quality of life on base is a major factor in retention of Air Force personnel, and CE plays an important part in that. What progress in quality of life improvements do you see happening during your term?

Brig Gen Robbins: First of all, I refer back to my previous comments about quality of life extending beyond traditional things, but I'll focus on traditional quality of life programs like family housing, dormitories, dining halls, fitness centers, and so forth.

Off the top, I would say the Air Force track record is exceptional in this area. We've received incredible support from Congress. Everyone acknowledges the role a dormitory, a family housing unit, affordable child care, or a dining hall can play in the recruitment and retention picture. The Air Force has stepped up to those requirements and spent a great amount of money in the last several years, and it appears we will continue to focus on those facilities, particularly family housing and dormitories.

In the past five years, we've spent almost \$70 million on child development centers, more than \$75 million on fitness centers, and about \$134 million on dining halls, visitors' quarters and libraries. I'm not sure we can continue to make that level of funding given the MILCON cuts I implied might come in the near term. For example, we have planned to spend about \$90 million per year just for dormitories ... I simply don't know if we can afford to do that.

The Secretary of the Air Force and Chief of Staff approved the Family Housing Master Plan. What we're trying to do is meet the DoD goal to fix our family housing by the year 2010. The bad news is there's a shortage in the budget to satisfy that goal, but that will be part of the Air Force Council deliberations over the next weeks and months. The question will be whether we can make the investment necessary to meet the 2010 goal or whether we need to go back to the Office of the Secretary of Defense and Congress and move that program past 2010.

The good news is that across most of the "traditional" quality of life spectrum we have a plan. We know where our deficiencies are, and we need quite an infusion of capital to address them.

It appears there's going to be somewhere in the vicinity of \$250 million in fitness center requirements identified, and we hope to fund those under MILCON. Our dormitory improvement program will buy out the 1 + 1 dorms and the deficit that's identified in the Dormitory Master Plan. Our friends in the Services community have a plan for non-appropriated fund construction of Temporary Lodging Facilities, which are vital to our families as they change duty stations.

Quality of life in its traditional definition, I believe, will continue to get strong support from the Air Force corporate structure and Congress.

The CE: What changes do you foresee in the environmental mission over the next several years?

Brig Gen Robbins: I don't see a lot of change in the mission. The bottom line is the Air Force will lead the DoD and, in my opinion, lead the entire federal government in environmental stewardship.

There will be a shift in emphasis and dollars from compliance to pollution prevention, trying to get the focus away from end-of-pipe to start-of-pipe technologies. We want to try to reduce the hefty environmental compliance bill we pay every year. The environmental restoration (cleanup) program is moving along smartly. More and more we find remediation underway as opposed to studies being conducted. It's a tremendous success story and we get great support from OSD and the Air Force on that program.

The most recent addition to our environmental agenda has been in the international programs arena. Our involvement with other nations such as Norway, Russia, Italy, Argentina and Israel fits well into the DoD and Air Force commitment to global engagement, and we've received excellent support from Ms. Sherri Goodman and Mr. Gary Vest in OSD, and Mr. Tad McCall in the Air Force Secretariat.

The CE: How will partnering with other government agencies and industry come into play during your term in the Office of The Civil Engineer?

Brig Gen Robbins: As I've been around many senior leaders in our career field during the last 20 years, it's been apparent to me that nobody succeeds in this office operating alone. There are

many, many partners you must have if you're going to succeed.

General Lupia, in his interview with *The CE* while in this office, acknowledged that fact and talked about this same issue, and he did a magnificent job of fostering those partnerships.

I'll continue to build on what General Lupia leaves behind as his legacy. I'm talking in particular about our excellent working relationships with Mr. Jimmy Dishner and Mr. Tad McCall at the Secretariat; with Ms. Sherri Goodman and Mr. Randall Yim in OSD; Maj Gen Milt Hunter and Admiral Lou Smith, our design and construction agents at the Corps of Engineers and Naval Facilities Engineer Command; and our partners in the private sector, the architect and engineering firms, the contractors and the consultants who help us accomplish our mission every day.

Finally, General Lupia was very good about keeping our retired officers and senior civilians informed about our current and future direction. I certainly intend to continue that. There's a group of individuals referred to as the Civil Engineer Founders — primarily retired CE colonels, general officers and senior civilians. We publish an informal newsletter that's sent out to the CE Founders periodically to keep them filled in on what's going on. I'll continue to provide that information and



Gen Robbins visited Prime BEEF and RED HORSE construction projects in Haiti. (Photo courtesy HQ ACC)

will welcome the advice and counsel of these valued members of our civil engineer family.

I'm honored beyond words that I have the opportunity to be in this chair ... it's something I frankly never imagined would happen. Whenever I start to feel really "down" about our resource problems, I slap myself back to reality by reminding myself we civil engineers — all 64,000 of us in the Active, Guard and Reserve force — still have more than \$5.6 billion per year to manage across our spectrum of facility- and infrastructure-related programs. While I'm acutely aware there are many difficult days ahead, I'm equally confident the incredibly talented and motivated airmen, NCOs, officers, civilians and contractors who make us who we are can, and will, continue to provide the best possible support for the Air Force mission and its people.

Clearing the Jungles of Panama



An aerial view of clearing operations at the Balboa West Bombing and Gunnery Range, Howard AFB, Panama. Explosive ordnance disposal teams cleared Balboa West in preparation for transfer of the land to the Government of Panama. (Photo courtesy 24th CES)

by MSgt Jeffrey Schley
Langley AFB, Va.

U.S. Air Force civil engineers have been busy the last 18 months gaining access to arduous terrain and clearing unexploded ordnance (UXO) in the jungles of Panama. Their mission — to meet Air Force obligations under the Panama Canal Treaty of 1977.

Under the treaty, the U.S. will transfer 353,895 acres of land back to Panama by the year 2000. Included in this land transfer are the Empire, Balboa West and Piña/Fort Sherman Ranges, which comprise 47,832 acres.

Since before World War II, these ranges have been used to train military personnel, from Panama and other countries around the world, in weapons handling and other defense-related activities. The ranges are located along the west bank of the Panama Canal and represent 13.9 percent of all land transferred under the treaty.



Remote subsurface plowing of airfield target. (Photo by Larry Johns)

The Air Force is responsible for returning Balboa West range land by the transfer deadlines and taking all steps to contain, control or physically eliminate hazards associated with areas known or suspected to contain UXO. This difficult undertaking has involved the services of approximately 170 civil engineers and medics, the majority of whom were explosive ordnance disposal (EOD) personnel from several Air Force major commands as well as the U.S. Marine Corps and U.S. Navy.

The task began in January 1998 with the surface clearance of all tactical targets and roadways. The 1998 clearance was followed this year by a one-foot, sub-surface clearance of tactical target areas and live ordnance target areas.

The 24th Civil Engineer Squadron EOD Flight, Howard Air Force Base, Panama, supervised the operation. The 24th CES Operations Flight supervised the building and tear-down of the range base camp and led the effort to build access roads and lay culvert, which is used as a shield during remote clearing.

One challenge in planning construction of the Balboa West compound was security. According to Lt Colleen Milligan, 24th CES maintenance engineering chief, it was necessary to have a 24-hour guard on the premises from day one.

“It was impossible to leave anything unattended, which added an interesting dimension to our timeline,” she said. “Our contract to have a local guard on duty 24 hours a day, every day, was costly but worth it in the end.”

The operation put to use state-of-the-art equipment such as the RCPT (Remote Control Posi-Track), a remote control vehicle (developed by the Air Force Research Laboratory as the All-Purpose Remote Transport System) contracted to mow and plow tactical target areas, ensuring the safety of EOD members.

Mowing was necessary to clear the 7- to 8-foot tall grass and locate ordnance on the surface. Plowing ensured sensitive munitions located just beneath the surface were jarred and rolled up remotely, thereby not exposing EOD members to the

hazards. It also alleviated the need for picks and shovels, which are bad things to bang into a UXO.

"Lola (the RCPT's nickname) was an extremely valuable asset to the clearance. The hardpack and rocks damaged Lola many times, but she was easily repaired," said SrA Waymon Hubbard, 5th CES, Minot AFB, N.D. "Lola was the unsung heroine of the clearance, putting in the hardest working hours. Using Lola probably prevented a few problems from ever occurring. By turning the soil, it placed most of the ordnance right on top, which made finding them very easy.

"One day when I was helping the contractor out, we saw a bright flame and a familiar plume of smoke drifting up from where she had just tilled," said Hubbard. "Lola had just found a White Phosphorus munition the hard way. Better Lola than me."

After the plowing was complete, EOD members established grids on the target areas, used ordnance detectors to identify anomalies, and carefully removed the ordnance items. This operation was done in 100-degree weather, 8 to 10 hours a day.



SrA Jason Birchfield, 355th CES, lines up BDUs (bomb dummy units) for a demolition shot. (Photo by SrA Waymon Hubbard)

Some portions of the range were so contaminated members had to get on their hands and knees and pick the metal fragments from the soil. "This was the most arduous range clearance I have done in my 18 years in EOD," said MSgt Michael Kollo, 377th CEG, Kirtland AFB, N.M. "The subsurface aspect was very difficult. I spent a lot of time on my hands and knees. The heat, insects and terrain all conspired to make it a tough clearance."

"Service integration was the key to the success of the Balboa West operation," said SrA Casey Ross, 1st CES, Langley AFB, Va. "Air Force and Marine Corps EOD troops were paired off and sent to work. Each had a broad working knowledge of the ordnance items that were encountered. Being an Air Force EOD troop, the information on ground ordnance shared by my Marine counterpart was indispensable. Marines deal with infantry-type ordnance on a daily basis, and myself with air-delivered weapons. With that kind of pooled knowledge, we accomplished a safe, first-rate job."

In addition to the surface UXO operation, Navy EOD teams cleared underwater areas around islands used by river patrols



A 500-pound BDU-50 uncovered during vegetation removal. (Photo by Larry Johns)

for target practice. Underwater grids were laid out and two-man dive teams performed sweeps, searching from the high water mark and out 60 to 100 feet, working in 30- to 40-foot depths. During their operation they cleared approximately 23 UXO from more than 25 acres of water.

Both surface and underwater operations were completed June 4. In the final tally, over 13,000 man-hours were expended safely clearing approximately 185 acres of impact areas, water, roads and trails on Balboa Bombing and Gunnery Range. The clearance resulted in the disposal of more than 4,000 UXO items. More than 25 tons of target residue and 18 tons of munitions residue were turned in for recycling. The recycling effort will save DoD enormous costs in treatment, all the while improving environmental conditions in the surrounding rain forest. It was a job well done by all in this truly Joint Service clearance.

MSgt Jeffrey Schley was Air Combat Command's EOD functional manager for operations support, providing command oversight for range decontamination efforts. He is now the EOD NCOIC of the Contingency Training Site at Ramstein AB, Germany.



Assorted munition residue and ordnance: 40 mm, 20 mm, small arms and White Phosphorus warhead cups. (Photo by SrA Ben Aster)

Mentoring Grows Leaders

by Maj Tim Green
Air Command and Staff College

Mentoring is one of civil engineering's primary tools for developing and influencing future leaders of our service. Squadron commanders can have a positive impact on officers under their command, themselves, their units and their career field as a whole when they invest time in mentoring.

Maintaining a healthy officer corps to lead in the future is a significant career field challenge. In November 1998, the Air Force Personnel Center reported there were fewer CE lieutenant colonels, majors and captains than required for ideal force structure. If new accessions remain below sustainment levels, there will continue to be a shortage of experienced mid- and senior-grade leaders in the future. Mentoring can improve retention rates by creating an environment where continued service is more desirable, along with having a long-term positive impact on the character of the civil engineer organization.

Mentors are "growers"

Air Force Instruction 36-3401, *Air Force Mentoring*, defines a mentor as "a trusted counselor or guide" and mentoring as "a relationship in which a person with greater experience and wisdom guides another person to develop both personally and professionally." A good word picture of mentoring was created by John Gardner, a man with tremendous experience in the military, government and industry. In his book *On Leadership*, Gardner described mentors as "growers." He wrote: "Mentors are

"The true measure of leadership is influence — nothing more, nothing less." John C. Maxwell

The 21 Irrefutable Laws of Leadership

growers, good farmers rather than inventors or mechanics. Growers have to accept that the main ingredients and processes with which they work are not under their control. They are in a patient partnership with nature, with an eye to the weather and a feeling for cultivation. A recognition that seeds sometimes fall on barren ground, a willingness to keep trying, a concern for the growing thing, patience — such are the virtues of the grower. And the mentor."

Measuring influence

Civil engineer responses to the 1997 Chief of Staff of the Air Force Quality of Life and Climate Surveys and the 1998 Civil Engineer Mentoring Survey provided valuable insight into civil engineer environment and perceptions.

The 1997 CSAF QOL Survey results quantified the long work hours experienced by most civil engineers (commanders averaged 66 hours per week and company grade officers averaged 52). The 1997 CSAF Climate Survey results showed civil engineer officers have many positive perceptions of their leadership and communication.

To complement this data, 152 civil engineers at Air War College, Air Command and Staff College, Squadron Officer School, Air Force Institute of Technology School of Civil Engineering and the 42nd Civil Engineer Squadron at Maxwell Air Force Base, Ala., completed the CEMS. This survey, which was created for a 1998 research project, focused on the methods commanders use to create contact time with their officers and possible quantitative and qualitative links between strong mentors and retention.

The latest data from these surveys, along with previous leadership and mentoring research, demonstrate consistent and positive benefits from mentoring. When commanders place a priority on people, they, their protégés and units reap the benefits. Protégé officers benefit through improved

performance and effectiveness, which in turn increases promotion and job opportunities as well as personal satisfaction. Mentor commanders benefit because the overall effectiveness of their unit improves. Their power and influence within the unit and eventually the career field increase as protégés support the mentor and his or her beliefs as their careers develop. The mentors also benefit from the personal satisfaction of seeing protégés succeed. The commanders who responded to the CEMS, primarily AWC students, spent more time with junior officers and mentored them to a greater extent than most civil

"Bottom Line: I would do anything to avoid disappointing my mentors. I want them to be proud of the job I do."

Lieutenant Colonel, 1998 CEMS Respondent

engineer commanders. These commanders were recognized and rewarded for their successes, primarily by promotion to colonel or selection for AWC in-residence, with perhaps more rewards ahead. Civil engineer squadrons and the career field benefit because their overall effectiveness and performance improve. Perhaps the most important organizational benefit is that mentoring is directly linked to perceived organizational support and contributes to increased officer corps loyalty and retention.

It takes time to be a mentor

The research demonstrated that time invested in a mentoring relationship is the most critical factor to its success. Conversely, the biggest obstacle to mentoring by civil engineer commanders is lack of time. CEMS results show that many commanders do not make the time needed to be effective mentors. Even though 93 percent of

“[Air Force] Mentoring program is, in my opinion, another flowerpot in the window — it looks nice, but really just sits there. The reason — real mentoring takes time.”

Lieutenant, 1999 CEMS Respondent

CEMS survey respondents had commanders with stated “open door” policies, the same respondents believed less than half the commanders successfully created many opportunities for contact time.

The most common method of creating time for officer development is regularly holding officer calls, informal social gatherings and organized physical training activities. These are easy to set up and keep on the calendar.

Surprisingly, unit members indicated 25 percent of squadron commanders held officer calls biannually or less, 31 percent held informal gatherings biannually or less, and 57 percent participated in some type of physical training with their officers biannually or less.

“Making one’s self available to subordinates and taking an active role in shaping their lives/careers is, or should be, a key part of being a leader/officer. Yet, for whatever reason, it’s been my experience that the overwhelming majority of commanders/senior officers don’t have time (or don’t care to make time) to fulfill this critical aspect of their leadership responsibilities.”

Lieutenant Colonel, 1999 CEMS Respondent

When commanders limit their interaction with their officers in order to complete “more important” work, they limit their ability to influence the officers and their organization. Alarming, only 44 percent of respondents believed their commander had a positive influence on their decision to remain in the service while 48 percent believed their commander had no influence. Eighty-two percent of these same respondents “agreed” or “strongly agreed” mentoring played a role in the desirability of continued service and that mentoring played an “important” or “very important” role in individual decisions to remain in the service. The research also found civil engineer units with higher officer retention were commanded by officers who invested a greater amount of time in their officers than an average commander. The additional time translated into additional influence. This suggests young officers are looking for mentors and leaders to follow and finding a significant percentage of squadron commanders unavailable.

The mentoring environment is fertile. The climate survey shows civil engineers think their job is important and trust their leadership. They believe commanders can communicate and motivate. Officers are making decisions to remain in the service, despite perceived lower pay and benefits when compared with the private sector. Most importantly these officers are looking for leaders willing to establish relationships that will have a positive impact on their lives. Many commanders need to continue “growing” young officers into leaders while others need to begin planting today. The seeds are in the field, the ground is fertile, and commanders should nurture the crop. Our future depends on the harvest.

*Maj Tim Green is now a Military Construction Program Manager, Engineering Division, Office of The Civil Engineer. His article highlights practical application portions of **The Art of Mentoring in the Base Civil Engineering Community**, a 1999 Air Command and Staff College research paper. A complete copy of the paper can be obtained from the Air University Library, DSN 493-7223/2888*

The 10 Roles of a Mentor

Effective mentors wear many hats in the relationship. Authors Daniel Lea and Zandy B. Leibowitz identified the following 10 roles of a mentor in their article in *Supervisory Management* magazine, “A Mentor: Would You Know One If You Saw One?”

Role Modeling A mentor is someone the protégé can emulate. Often protégés unconsciously pattern mannerisms after the mentor. In essence, the mentor is often the “mythical ‘who you want to be when you grow up’ or sometimes the ‘who you don’t want to be.’”

Teaching A mentor “instructs the mentee in the specific skills and knowledge necessary for successful job performance...”

Guiding Helping protégés through the “unwritten rule” minefield speeds their assimilation into an organization and keeps them from unknowingly isolating themselves through various actions or inactions.

Advising The difference between guiding and advising is the initiation of the discussion. The protégé usually asks for advice while the mentor typically initiates giving guidance.

Motivating Motivating is simply providing the “encouragement and impetus for the mentee to act toward achievement” of his/her goals.

Communicating A mentor “establishes open lines of communication” so that concerns are “discussed clearly and effectively.” It is important to realize “communication is insufficient by itself to insure good mentoring” and the other roles of mentoring are hindered by poor communication.

Validating Mentors play an important role in helping protégés develop their aspirations. “The mentor evaluates, possibly modifies, and finally endorses the mentee’s goals and aspirations.”

Counseling This role emphasizes emotional support in stressful times using empathy, understanding and encouragement.

Sponsoring Mentors can use their influence to ensure protégés have “growth opportunities.” This basically involves putting protégés in a position to grow in new areas, but it does not mean they will be successful. Once doors are open, success is up to the protégé, not the mentor.

Protecting A mentor provides a “safe environment” where “the mentee can make mistakes without losing self-confidence.” Protecting can also carry a negative connotation. If a mentor “protects” the protégé to the extent that he never faces any consequences from his mistakes then others perceive this “protection” to be unfair.

More than 700 civil engineers were in theater during the Kosovo crisis. CE provided critical construction and air operations support for NATO Operation Allied Force at air bases throughout Europe, and for Joint Task Force Shining Hope at Rinas International Airfield in Tirana, Albania. The following pages contain reports from some of the many CEs who made a difference in the campaign against Slobodan Milosevic's military regime and in the Kosovar refugee relief efforts in Albania and the Former Yugoslav Republic of Macedonia, some from as far away as Southwest Asia ...

Tent City Tear Down Benefits Kosovar Refugees



by Capt Michael Sheredy
Holloman AFB, N.M.

What was once home to thousands of Air Force members and joint and combined forces supporting Operation Southern Watch is no more. Tent City at Prince Sultan Air Base, Saudi Arabia, is now just a memory thanks to Operation Desert Shift.

Almost 900 tents and all associated infrastructure were removed by the men and women of Bare Base, the 49th Materiel Maintenance Group, Holloman Air Force Base, N.M. More than 600 of these tents were airlifted to house Kosovar refugees in Albania and Macedonia.

The Bare Basers, specialists from both the civil engineer and logistics communities, didn't do it alone, though. A team from the 653rd Combat Logistics Support Squadron from Robins AFB, Ga., deployed to assist with tent packing, and, for one day, roughly 2,000 personnel from the 363rd Air Expeditionary Wing came out for "Tear Down Tuesday."

"The 363 AEW held the largest mobility exercise I have ever witnessed in my career," said Lt Col Edward "Lance" Laverdure, U.S. Air Forces Central Command (USCENTAF) chief of supply and retrograde team commander for the Tent City tear down. According to Laverdure, the April 6 tear down was the fastest tent drop of this size in Air Force history.

TSgt Conrad Andry leads his tent demo crew in dropping a TEMPER tent at the former Tent City, Prince Sultan AB. Almost 900 tents were removed from Tent City during Operation Desert Shift. (Photos by Capt Michael Sheredy)

The original plan was to allow 60 days to accomplish the tear down, removal and packing of all Harvest Falcon assets in Tent City, which were no longer needed as a result of the 363rd AEW moving into the Friendly Forces Housing Complex (FFHC). But as the refugee situation in the Balkans worsened, the call was made for almost all the tents to be shipped from Prince Sultan to the Kosovo area of responsibility in just two weeks. While Bare Base is known for setting camp installation and tear down records, this cut their time frame by 75 percent.

The Bare Base team accepted USCENTAF's challenge and hit the ground running on day one, but even the incredibly fast pace they were setting wasn't going to be fast enough for the refugees. For this reason, Bare Base's officer in charge went to the 363rd AEW with a request for 300 people. The wing responded with 2,000 volunteers for one day, forever making April 6, 1999, known as Tear Down Tuesday. This tremendous cooperative effort gave Bare Base the added boost it needed to make the two-week time frame.

Tear Down Tuesday was an incredible undertaking, but what followed was even more impressive. For the next 10 days, 85 people divided into seven different crews that were completely integrated and focused on one goal — tearing down tents to send to the Kosovar refugees. Crated pallets were constructed for the packers as they followed behind the tent tear down crews. The forklift operators never stopped moving and the shipment crews did everything they could to prep all of the packaged tents for airlift to the refugees. There was even a crew scrounging cots, blankets, bedding, pillows and a few boots to send out as well.

By the end of the two weeks, all of the tents were torn down and packed in tri-wall boxes with their frames in crated 463L pallets, ready for airlift, along with more than 2,000 cots and several hundred blankets and pillows. The team had worked 14-plus hour days for 14 straight days — finishing the job right on time.

After their two-week sprint, the Bare Base team was able to relax a little and get back to the original plan. The team dropped its crew size to a steady 57, no longer requiring augmentees from the wing, and the work schedule was cut to 10-hour days, six days a week. Now that the rush was over, the focus was on preparing a package for Bright Star '99 and shipping the remainder of the assets to Thumrait, Oman, for reconstitution.

The Bare Base team then moved on to their other tasks. Structures specialists erected a frame-supported, tensioned fabric shelter to be used as the new Community Activity Center in the FFHC and relocated six general purpose shelters. Work was accomplished on several aircraft hangars as well. Once this work was completed, Bare Base went to all of the HF facility assets and large commercial HF-like facilities to make repairs and perform maintenance. This was the team's way of saying "thanks" to the wing and to the 363rd Expeditionary Civil Engineer Squadron for all their support.

Bare Base had lived up to its slogan of "Unique, Flexible, Mobile." The scope of their mission changed a few times along



Structures specialists from the 49th Materiel Maintenance Group disassemble a General Purpose Shelter for relocation to the new Friendly Forces Housing Complex at Prince Sultan AB.

the way, but by the time they redeployed on May 22, Bare Base had provided support for Operations Desert Shift, Shining Hope and Southern Watch and for Bright Star '99, touched every large facility at Prince Sultan Air Base and Eskan Village (87 in all) and provided briefings to the USCENTAF-J4 and the 9th Air Force vice commander. Oh yeah, not to mention, Tent City no longer exists. What Base? ... BARE BASE!

Capt Michael Sheredy, 49th Materiel Maintenance Squadron electrical flight commander, Holloman AFB, N.M., was the leader of the Bare Base team in charge of dismantling Prince Sultan Air Base's Tent City.



Camp Hope was a joint effort between the U.S. military, contractors and non-governmental organizations to meet the needs of Kosovar refugees. (Photo by SSgt Chris Steffen)

AFCAP builds U.S. refugee camp in Albania

CE Staff Report

Serb military forces drove more than 800,000 ethnic Albanians out of Kosovo after NATO began air strikes March 24. Many victims of the ethnic cleansing moved in with friends or relatives in neighboring Montenegro, Macedonia and Albania; approximately 90,000 were sent to 29 other nations, including 8,500 to the U.S.; and

hundreds of thousands were housed in camps, mainly in Albania.

The Air Force Contract Augmentation Program was used to establish the first U.S.-sponsored refugee camp near Fier, Albania, under Operation Sustain Hope. Construction on Camp Hope began April 27 and the first refugees moved in May 12. By mid-June, there were more than 3,400 refugees living in the camp. Originally planned to house up to 20,000 refugees, Camp Hope was near completion and a second AFCAP camp, Camp Eagle, was well underway when the Military Technical Agreement was signed June 9.

United States Air Forces in Europe civil engineers provided on-site quality assurance and general oversight during construction. The AFCAP contractor, Readiness Management Support, erected 1,820 general purpose canvas tents and associated infrastructure in completing Camp Hope before turning it over to the Cooperative for American Relief Everywhere (C.A.R.E.), a non-governmental relief organization, June 26.

The AFCAP program allows the Air Force to contract supportive, non-combatant services during disaster response and humanitarian relief actions, so that military civil engineers and resources may be used for other missions as required. AFCAP services include base operating support, temporary construction, and installation support services for military operations other than war.



RED HORSE

and the Balkan Air Campaign — Seven Sites in Five Countries in 100 Days

The Kosovo crisis provided an opportunity for RED HORSE to test their new hub-and-spoke concept of operations, aligned with the Air Force doctrine of “Lighter, Leaner, and more Lethal.” A team from the 823rd RED HORSE Squadron, Hurlburt Field, Fla., was able to deploy personnel and minor equipment sets throughout Europe from a command cell at Ramstein Air Base, Germany, and marry them up with prepositioned assets from the 31st RED HORSE Flight at Camp Darby, Italy. The concept worked successfully during the deployment, which lasted from April 13 to July 20, even as the team encountered every conceivable type of fog-of-war problem.

Rinas International Airfield, Tirana, Albania — A Lesson in Deep Mud

What greeted the RED HORSE team as they deplaned at sunrise, April 16, at Rinas International Airfield in Tirana, Albania, was an airfield congested with some 3,000 members of U.S. Army Task Force Hawk, 400 members of Joint Task Force Shining Hope’s airfield operation, and about 300 NATO personnel from Belgium, Germany, France and England.

C-17s, C-130s, IL-77s, Apache and UH-53 helicopters and commercial flights all competed for the same limited airspace over a single runway with one parallel taxiway. This created a dangerous environment in the air and on the ground where the RED HORSE team would be operating.

Excessive use of tracked vehicles, removal of ground cover and installation of tents and infrastructure during the rainy season (it rained every day for 42 consecutive days) had turned the

encampment into a knee-deep quagmire.

The encampment itself was a tribute to the massive effort by the 86th Civil Engineer Group from Ramstein Air Base, Germany, who completed the initial Air Force beddown on an old soccer field complex and parking area.

Tent space at the airfield was severely limited, so the first challenge was to locate an area to bed down the eight-person advance team, then find an area large enough (and dry enough) to support the beddown of an additional 94 RED HORSE personnel.

The air base provided an area that was adjacent to the perimeter fence — and under 18 inches of water. Assets were scarce, so a request was sent to the RED HORSE command cell at Ramstein AB, Germany, for vehicles and heavy equipment. In the meantime, the team began preparing their beddown site using a 1954 Russian-made bulldozer and one truckload of unwashed river rock per day.

Task Force Hawk had priority on all airlift at this time, so arranging airlift for 38 vehicles and pieces of heavy equipment from the RED HORSE depot at Camp Darby was very unlikely. The

command cell at Ramstein was able to obtain RH1 assets (tents, generators, food, water, vehicles and tool sets) for the team in Albania within 72 hours.

Airlift for the RH2 assets, however, could not be validated, scheduled and delivered by the arrival date of the follow-on 94-person team. RED HORSE elements at Ramstein and Camp Darby began coordinating alternate sealift from the port of Livorno, Italy, to the port of Durres, Albania. This proved challenging since port operations had not been established at Durres.

Due to limited availability of construction materials in Albania, RED HORSE logistics personnel began procuring plywood, framing wood, geotextile materials and tools. These assets were nested in the beds of 10- and 20-ton dump trucks, decks of flatbed trucks and any other area where materials could be stored before shipment to provide RED HORSE personnel the ability to begin operating immediately.

The RH2 set was delivered by sealift in four days. RED HORSE line-hauled their own assets over 45 miles of congested, one-lane roads between the port and camp. This required considerable coordination with Security Forces, Army personnel, Intelligence and the U.S. Navy (which was establishing port operations).

It took four trips, averaging 15 miles per hour, to get all of the vehicles, construction materials and tent city assets to Tirana. With orders to drive through any roadblocks or vehicles blocking the roads, to be off all roads by sunset and to shoot if shot at, it made for a very tense, very long day.

With the arrival of its equipment, the team was ready to begin construction;



Perimeter road work at Rinas Airport, Tirana, Albania. (Photos courtesy 823rd RHS)



(Photo by TSgt Cesar Rodriguez)



(Photo by SrA Gina Prescott)

Members of the 820th RHS, Nellis AFB, Nev., (above) and the 823rd RHS, Hurlburt field, Fla., (left) constructed a new 1,000-foot taxiway at Rinas Airport, Tirana, Albania.

however obtaining concrete, rock and asphalt continued to be a challenge.

In the end RED HORSE personnel completed the following in Albania:

- Replaced the failed C-17 operations ramp
- Improved 3.5 miles of camp and perimeter supply roads
- Constructed a medical evacuation helicopter operations pad
- Upgraded power to Air Force tent city and installed 100 environmental control units
- Began construction of a new 1,000-foot concrete taxiway to replace a taxiway destroyed by Shining Hope operations. The taxiway was completed by the 820th RHS, Nellis AFB, Nev., which deployed to complete any Kosovo reconstruction actions required by U.S. Air Forces in Europe and Operation Allied Force commanders.

Operation Allied Force Heats Up Aviano AB

Aviano AB, Italy, became the primary launch platform for the air campaign over Kosovo and Yugoslavia. The 31st CES at Aviano constructed a 5,000-person tent city to help support this operation. Twelve RED HORSE electricians, power production specialists and equipment operators deployed to Aviano May 3 to upgrade existing power distribution

systems to support the additional load.

With equipment support from the 31st RED HORSE Flight at Camp Darby, Italy, and a 100 percent complete design and material list from the 31st CES, the team was ready to start. Project scope included installing 1.5 miles of primary distribution cable, three substations, three secondary distribution lines with 27 power panels and 224 commercially



Installing primary distribution cable at Aviano AB, Italy.

procured, locally manufactured air conditioning units.

With summer coming and a lack of air conditioning in tent city, the team was asked to complete the project by June 15 — an achievable timeline by RED HORSE standards, but as of mid-May only one out of 64 scheduled air conditioning units had been delivered.

After considerable negotiation, the

contractor agreed to begin supplying 25 units per week beginning June 5. RED HORSE flowed an additional 10 personnel into Aviano from the pool at Ramstein to install these units without impacting completion of the primary and secondary distribution systems.

Meanwhile, temporary generators were installed to run the system until the substations could be fabricated. Creating the required load to run the generators without burning them out required installing another 30 units and reconfiguring the supporting power panels. With this Band-Aid fix in place, RED HORSE continued completion of the primary and secondary distribution systems while installing air conditioning units as they arrived.

RED HORSE redeployed after successfully hooking up the system once the substations were delivered and running the required tests to complete the project.

JTF Noble Anvil — Taszar, Hungary

Col Glenn Haggstom, the USAFE Civil Engineer, directed the RED HORSE command cell to evaluate airfield repairs and upgrades at Taszar AB, Hungary, to support deployment of three squadrons of Marine Corps F-18 Hornets and one squadron of Air Force A-10 Warthogs for Joint Task Force Noble Anvil.

Upon arrival on April 28, the team found almost 80,000 square meters of non-operational taxiway, severely limiting C-130 Bosnia Stabilization Forces (SFOR) operations at Taszar. The taxiway would require milling and installation of a 3-inch asphalt lift.

Limited availability of equipment in the area required RED HORSE to bring their milling machine and paver. Additional assets were needed, but airlift was still severely limited.

There were RED HORSE assets at Camp Eagle, Bosnia, which could be line-hauled via the Army Brown & Root convoy. However, the contractor could not respond in less than 28 days unless RED HORSE provided drivers and an armed "shotgun" rider in each vehicle.

RED HORSE deployed eight personnel to Bosnia on May 4 to marry up with the Army convoy for the next three days.

Milling operations ran for 96 hours straight (two 10-man crews working 12 hours per day) until the machine blew a cylinder and went down for maintenance. A heated search for parts ensued.

Eventually the milling machine was repaired and the remainder of the taxiway repair completed, enabling deployment of Marine aircraft two weeks ahead of schedule.

RED HORSE completed the following work at Taszar, totaling \$1.1 million:

- Milled and overlaid 80,000 square meters of Taxiway Echo
- Constructed a 250' x 100' hot cargo marshalling area
- Constructed a 100' x 100' RAPCON relocation pad



Airfields Flight members pave Taxiway Echo at Taszar, Hungary.

Dormitory Renovation at Birgi AB

At Birgi AB, Trapani, Italy, the project was to renovate a 300-person dormitory, install a 100' x 120' ammunition build-up pad with lightning protection and install an Expedient Airfield Lighting System (EALS). This later increased to include renovation of an additional 204-person dormitory and initial base sustainment operations pending the arrival of a 51-man Prime BEEF lead team from Offutt AFB, Neb.

Again, one of the biggest challenges facing this RED HORSE team was procurement of materials, due to Birgi's



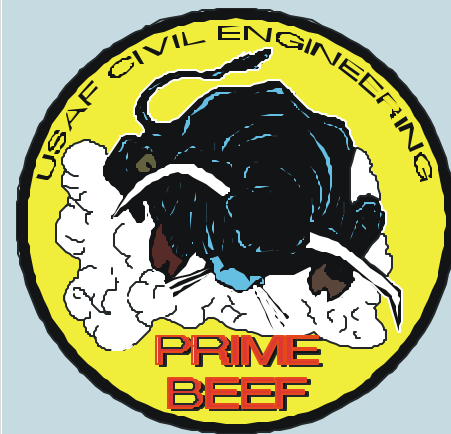
SSgt Steven Stanford, 823rd RHS, repairs and preps dormitory walls for painting at Trapani, Italy.

remote location. Factor in a cash-only economy and a very specialized shop system, and acquiring construction materials to complete work became a daily chore.

Once the team began renovating the dormitory, which was also the deployed home of RED HORSE, the full extent of the dilapidation and difficulty became apparent. The building was filled with trash and old furniture — a haven for rodents and biting insects.

Renovation required complete replacement of all electrical conduit, distribution lines, sinks, water closets, bidets, marble stair treads, windows and doors. Walls were repaired and painted.

Plumbing work was challenging due to the Italian standard of using wrapped horsehair on pipe joints instead of Teflon tape. This was severely labor intensive and added significantly to the manpower



**Lt Col Mark Tissi
Ramstein AB, Germany**

The Prime BEEF team from the 86th Civil Engineer Group at Ramstein Air Base, Germany, deployed to Rinas International Airport in Tirana, Albania, in early April to support Joint Task Force Shining Hope, the core of humanitarian operations in the Balkans during the Kosovo conflict.

A seven-person advance team of Prime BEEF members arrived April 4, and another 98 followed April 7. Their job was to set up a 450-person tent city (which ultimately became 800) to support the transshipment, by helicopter and truck, of humanitarian relief supplies that were arriving by air.

The team first had to "build" land by spreading thousands of tons of rock over the site, which was an old soccer field near the flightline, to overcome severe drainage problems. As the equipment operators progressed, the team set up more than 100 TEMPER tents for use as workspace, billets, dining, medical care, AAFES, field showers and field latrines before the majority of Prime BEEF personnel redeployed on April 30.

The 36 personnel who remained sustained the camp while continuing with site improvements, such as installing wood tent floors, erecting more tents as the population expanded, and placing protective barriers around the camp perimeter. Fourteen members of the 48th Civil Engineer Squadron from RAF Lakenheath, England, arrived in late May to augment the sustainment force.

The team put forth a tremendous

See RED HORSE, page 23

Tirana beddown displays spirit, dedication of CE troops

effort during the entire deployment, but there is one day that stands out most prominently in my mind — one day that typified the spirit and dedication of these troops.

Little, if any, Harvest Eagle assets arrived during the first four to five days after we arrived at Tirana. Then, on April 13, we received several boxes, enabling us to accelerate setup of the camp. Unfortunately, as we got the boxes onto the site at about 1 p.m., the skies opened up and a deluge of rain began — not a mist or a shower, but the kind of steady, torrential rain that was not unusual during that first week.

Over the next five hours, the CE team worked in ponchos and Gortex, being pelted by rain as they erected 14 TEMPER tents atop a gravel base with liners, lights, and power (heaters and wood floors didn't arrive for a few more days).

Then, after “high fives” all around, Lodging projected they would need still more bedspaces to accommodate personnel due to arrive later that evening. The troops regrouped and erected three more tents in the fading daylight and continuing rain.

In the meantime, a crew went to work with shovels and rakes to open up the drainage ditches and culverts we had installed to clear them of debris that was blocking the flow of water off the site.

In a span of about seven hours, we had more than doubled the capacity of the camp — despite miserable conditions — and the camp was finally showing signs of being able to weather the rains which had previously turned it into a puddled, muddy swamp.

In retrospect, this was certainly the day these CE troops became a team — much more than the sum total of its parts.

The next day there were more than a few sore throats and sniffles from colds, but not a complaint or whine in the bunch. They were ready to take on whatever showed up next on the ramp. I was honored to be with them and would take them on another deployment anywhere, anytime!

Lt Col Mark Tissi was commander of the 86th CEG Prime BEEF team at Tirana, Albania.



(Photo by SSgt Efrain Gonzalez)



(Photo by SSgt Efrain Gonzalez)



The 86th CEG Prime BEEF team worked vigorously to build up infrastructure at Rinas International Airport in Tirana, Albania, to support Joint Task Force Shining Hope. (Photo by TSgt Cesar Rodriguez)



CE Staff Report

In the weeks since NATO forces moved into Kosovo and Serb military and police forces began to withdraw, the majority of those involved in the Kosovo conflict have gone home, including hundreds of thousands of Kosovar refugees. Now a main concern is not providing the refugees with shelter but protecting them from land mines and unexploded ordnance (UXO).

When Serb forces withdrew they left behind munitions, weapons and ammunition. Other dangers include unexploded Serb, Kosovo Liberation Army and NATO ordnance. Explosive ordnance disposal technicians from all NATO forces are deployed to Kosovo to locate and dispose of these UXO as part of the peacekeeping mission of NATO's Operation Joint Guardian.

Joint Army, Navy and Air Force EOD teams are operating out of three locations: a force protection team at Camp Able Sentry in Skopje, Macedonia,



SrA Kevin Conklin, 75th CEG, balances a load of munitions found in a destroyed ammunition depot together with two Army EOD members. SrA Stuart Wylie, 75th CEG, and SSgt Michelle Barefield, 4th CES, help to steady the munitions from the truck.

EOD Teams Clear Kosovo



SrA Michael Stimpson, 4th CES, searches a crater for any remaining explosive hazards after a munitions detonation near Camp Bondsteel in Kosovo. (U.S. Army photos)

and two forward locations in the U.S. sector of Kosovo at Camp Monteith and Camp Bondsteel.

The 366th Expeditionary Civil Engineer Squadron is the Air Force component of this joint service, Army-led effort. Its 17 EOD members represent the 99th CES, Nellis Air Force Base, Nev.; the 4th CES, Seymour Johnson AFB, N.C.; the 75th Civil Engineer Group, Hill AFB, Utah; the 437th CES, Charleston AFB, S.C.; the 52nd CES, Spangdahlem Air Base, Germany; and the Air Force Civil Engineer Support Agency, Tyndall AFB, Fla. Eight personnel from the 366th CES, Mountain Home AFB, Idaho, recently redeployed.

The joint service EOD team has been working since July to assess 176 target sites in the U.S. sector, and averages four to seven calls a day for munitions evaluation and/or UXO clearance.

"In the EOD business, not only is there a mission to support the launch and recovery of aircraft when we're dropping the bombs, but there's also a mission to clean up the bombs afterwards," said CMSgt David Brown, Headquarters Air Force Civil Engineer Support Agency.

Brown was deployed to the U.S. Air Forces in Europe staff, and was primarily involved in establishing the joint EOD teams for Kosovo operations.

"In this campaign there were so many munitions dropped — there's an estimated 11,000 UXOs just from cluster bombs plus guided bomb units, missiles, cruise missiles and all the Allied munitions — that there is a tremendous UXO problem."

Cluster bombs are an especially dangerous threat to those in Kosovo because they are so sensitive. According to Chief Brown, EOD doesn't attempt to clear a cluster bomb if the wind is blowing too hard.

"We have equipment in country to deal with that and other threats. We deployed robotic equipment early on with the first teams, primarily Air Force Research Lab's All-Purpose Remote Transport System (ARTS)," said Brown. "We've used them for intended and unintended purposes, and they work very well. During our compound buildup, the ARTS was used in a support role with bucket and backhoe attachments and the remote system disconnected (personnel driven) to clear and level areas for TEMPER tents, move equipment and explosive pallets, spread crushed stone



SSgt Harvey Bowling, 99th CES, passes ordnance to SrA Michael Stimpson, 4th CES, to place on a demo shot.

for walkways and driveways, and even dig a drainage ditch.

“Operationally, the ARTS was used in an aborted attempt to recover a deeply buried Mk 80-series bomb. The ARTS worked as advertised — and then some,” said Brown.

In addition to the large number of UXO on the ground, the region’s terrain

and climate have posed challenges as well.

“The daily challenges we face range from driving on extremely narrow roads along mountainous cliffs to keeping vehicles and sensitive electronic equipment functioning,” said Capt James Greene, 366 ECES officer in charge.

“We’ve already lost a number of side mirrors from our HMMWVs (high-mobility multi-purpose wheeled vehicles) to overgrowth along these roads, which are actually paths for horse carts.

“When we arrived in mid-July, temperatures were in the 90s and the entire camp was in a virtual haze, with dust devils swirling all around,” said Greene. “Computer equipment is especially vulnerable in this environment. The TEMPER tents and environmental

control units, along with some TLC, have been critical in keeping our systems up and the dust out.”

In addition to EOD, the 52nd CES contributed 12 civil engineers — structural technicians, HVAC, heavy equipment operators, electricians, power production and plumbers — to beddown Navy, Air Force, and Army EOD and sustain Camp Bondsteel.

The 12 CEs volunteered to help renovate and repair a couple of local schoolhouses so classes could begin on time. The joint service EOD team took on the challenge of searching each of the 224 schools in the U.S.-controlled sector for mines, boobytraps, or other weapons left over from the conflict.

“This team is extremely proud to be able to help the people of this region,” said Greene. Just seeing the faces of the children along the roads as they shout their appreciation is enough to know that what we’re doing is right, and a responsibility which we take very seriously.”

CE continues to support the fight for Kosovo through EOD and beddown missions within the province itself, and by stepping out to help the most helpless of its citizens, as in this personal account by SSgt James Ludwig, 52nd CES, Spangdahlem AB, Germany.



(Photo by SSgt James Ludwig)

makeshift crib for an 18-month old baby girl who, along with her mother, had been shot while in their home during some unrest in a local town. The child’s father had died during the incident. The nurse said the plywood was all they had for the time being.

I looked in the plywood and there was a child with IVs and tubes all around her. I asked what her name was, then at that point I had to leave. I told the nurse I had to get back to work, but that wasn’t my real reason for leaving. I was afraid I was going to break down, especially being the father of three girls myself.

I went back to my tent and started cutting two-by-fours and sanding. Before I knew it my team members were helping me. Some were sanding, some cutting, some putting parts together. “What do you need me to do?” they were saying, “It’s no problem for a child.” We finished that night and took the crib to the hospital.

An Army colonel asked for the names of the team, maybe for a letter of appreciation or a coin. I told the colonel I would try, but we hadn’t done this for recognition or praise, but simply because there was a child who had been through a lot of bad things and she at least deserved a crib.

Air Force fire departments may not need Critical Incident Stress Management often, but when situations arise that could create a devastating effect on responders, incident commanders must recognize this situation and react quickly so personnel can get the assistance they need to get back to their normal routines.

Critical Incident Stress Management

by Jim Rackl

Air Force Academy Fire Department



A MAST Blackhawk leaves the scene of a multiple-fatality accident that occurred on Interstate 25 on the U.S. Air Force Academy. A Critical Incident Stress Management debriefing helped responders recover from their experience and return to their jobs. (Photos courtesy Colorado Springs Fire Department)

One Saturday afternoon this February, Air Force Academy firefighters were faced with a tragic situation that tested both the physical and mental abilities of the responding members. The distressing nature of the emergency was such that help was required from the county Critical Incident Stress Management (CISM) team.

The emergency, which occurred on the portion of Interstate 25 that is on the Academy, involved two vehicles with a total of 11 victims. One vehicle was a king-cab pickup truck with seven occupants, including a 1-year-old baby. The other, a full-size van, had four occupants. None of the occupants were wearing seatbelts. The van blew a front tire and careened across the median into oncoming traffic. It hit the pickup head-on. Of the seven passengers in the pickup, five were killed instantly,

including the baby. Two people were ejected from the van and were also killed.

Responders had to remove deceased victims before they could initiate extrication of the remaining patients. Firefighters stayed on the scene to assist the coroner with body removal and identification. These actions had a profound impact on many of them.

The incident commander recognized the need for CISM. A call was made to the county CISM Team, and they provided a representative within the hour to determine the best method of debriefing personnel. Although there is normally a 48- to 72-hour lapse recommended between the incident and the debriefing, it was felt that the needs of these personnel had to be addressed that day.

A debriefing was set up for that evening at one of the Academy fire stations. All responders, including Academy firefighters, Colorado Springs firefighters and police, Colorado state troopers, and county fire dispatchers were offered the opportunity to attend.

The CISM team provided a specially trained peer group of counselors familiar with what the responders had been through. The debrief was private, which facilitated the process and allowed firefighters to share their innermost feelings with others in the group. The

CISM team requested participants be relieved from responding to other calls during the debrief so the group would not be disturbed. The team also offered to provide follow-up care on an individual basis.

Every fire department should have a checklist for CISM team activation. Many base medical facilities provide this service, but a team comprised of peers is preferable. You must be able to determine which asset provides the most benefit to your personnel.

When determining the need for CISM, remember that personnel on the same scene may be affected differently by the task at hand. Each responder should be evaluated individually to best meet their needs. Additional considerations when determining the need for CISM include:

- How severe was the incident?
- How is it affecting the responders?
- Were there compounding factors, such as multiple fatalities or young children involved?
- Did firefighters know the victims?
- What is the experience level of the responders? Are they young firefighters who have not witnessed traumatic incidents before?
- How much hands-on rescue work had to be done with the victims?

The Air Force Academy Fire Department protects a large, active installation comprising over 18,000 acres of land, one of the busiest airfields in the Air Force, a major north-south rail line, and an 8-mile stretch of Interstate 25.

Once a CISM team is requested, there are several procedures that should be followed to ensure the most productive session. Secure a quiet room that seats all the attendees, typically in a circle. Disconnect all phones, turn off the public address system and transmit alarms only over radios while the debrief is in session.

Alternate personnel should be on call to respond to emergencies during the debrief. We called one of our local volunteer mutual aid departments, and they provided a full fire company within 30 minutes of the request. This fire company was even prepared to spend the entire night at our fire station in case

some of our personnel had to be relieved of duty for the night. Assistance like this is not created on the spur of the moment. You must build relationships with your neighbors so that in these critical instances help is readily available.

How effective is a debrief? Based on our experience, people recover better, faster and deal more effectively with their feelings after a debrief. With only two operational shifts, our department has to come back to work sooner than many civilian departments. Therefore, our recovery time is more critical, as we can be placed back into the same situation sooner. In fact, the on-duty

shift responded to another rollover accident on the interstate that evening.

As managers or incident commanders, we are charged with providing the best care for our customers. Don't forget that your firefighters are customers too, and their needs are no less critical than anyone else's. Provide follow-up care as needed. Take care of your own, and they will continue to serve effectively.

Jim Rackl is assistant chief for operations, Air Force Academy Fire Department. He has 31 years of experience in fire protection.

RED HORSE and the Balkan Air Campaign

continued from page 18

requirement for installing hundreds of fixtures.

In the end, RED HORSE provided the Air Force 504 rooms — 1,008 bed spaces — for the three deployed A-10 squadrons. The team completed the renovation two weeks ahead of schedule, enabling USAFE Services to cancel lodging contracts with downtown hotels during the expensive holiday season. The dorm project saved \$1.8 million in lodging expenses.

Harvest Falcon Beddown at Balikesir, Turkey

With several teams deployed throughout Europe, a 40-person vertical RED HORSE team still remained at Ramstein awaiting tasking by the USAFE CE. The opportunity came at Balikesir, Turkey. Balikesir would be the beddown site for three squadrons of F-15 Eagles.

While scheduling airflow for two 1,100-person Harvest Falcon kits, it became apparent that restricted airflow would preclude a stateside Prime BEEF team arriving soon enough to complete the beddown. The task fell to RED HORSE.

USAFE commander Gen John P. Jumper requested the tent city be complete in 21 days. This schedule, combined with the airflow challenge,

necessitated use of the Air Force Contract Augmentation Program contractor to supply heavy equipment, fuel, fleet management and maintenance for the beddown.

After three days of negotiations with Turkey, the U.S. beddown was cleared for execution. Harvest Falcon assets began arriving May 31. The clock was ticking and RED HORSE pushed ahead with help from a 23-person Bare Base team from the 49th Materiel Maintenance Squadron, Holloman AFB, N.M.

One unexpected difficulty was the Turkish requirement that storm drains and grey water pipes be hardwired into a subgrade sewer system over a mile away. Fortunately a contracting officer who had worked with us on another project was at

Balikesir and procured the required materials quickly.

On June 7 RED HORSE handed the keys to a 2,200-person tent city with 9-1-A kitchen, shower/shave units, hardwired latrines and water supply over to the deployed Seymour-Johnson wing commander — almost two weeks ahead of schedule.

End of Tour

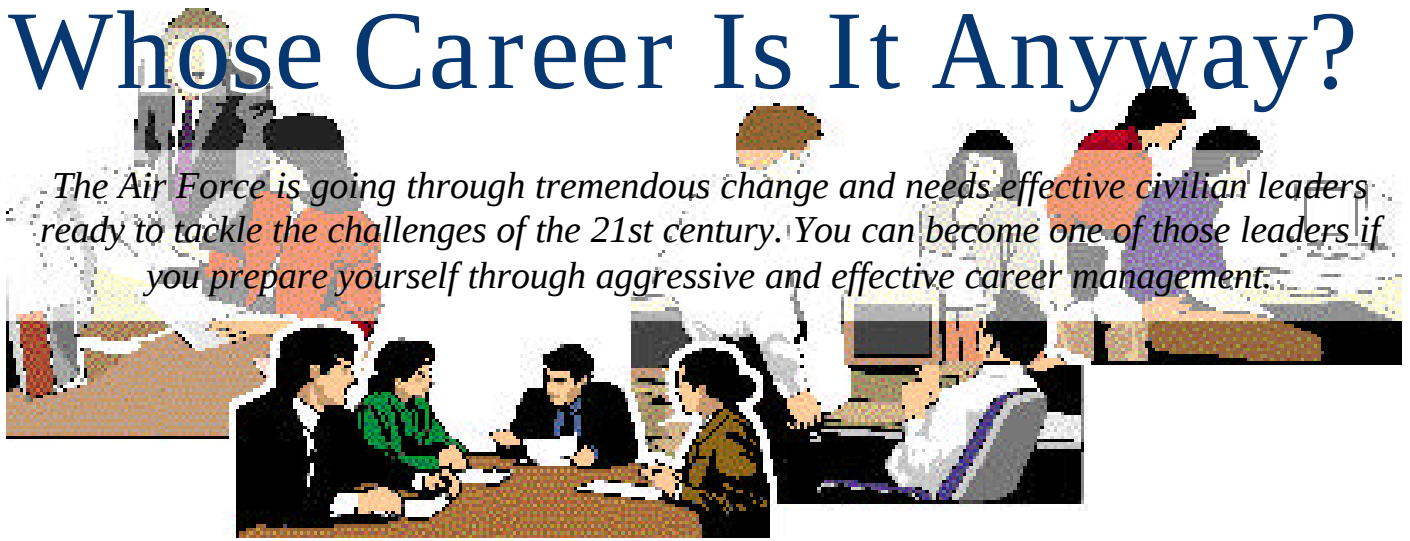
By the end of the Balkan air campaign, the 823rd RHS had deployed 229 personnel to operate at seven sites in five countries. They completed more than \$5 million in construction support for both humanitarian operations and the warfighting effort. Throughout the entire theater, in every operation and joint task force, the men and women of the 823rd added another bullet to their motto: Can Do, Will Do, Have Done.

Capt Kurt Bergman is the engineering flight commander for the 823rd RED HORSE Squadron, Hurlburt Field, Fla., and was the officer-in-charge of the RED HORSE command cell at Ramstein, Germany, during the Balkan air campaign.



Members of the 823rd RHS and 49th MMS construct a tent city at Balikesir, Turkey.

Whose Career Is It Anyway?



by Tom Russell
Patrick AFB, Fla.

Being in the right place at the right time is critical to career advancement, and through aggressive career management, you can create the right places and right times.

I periodically give talks to engineer groups at Patrick Air Force Base about career management. I always begin my talks by asking, "Who manages your career?" Answers range from "I don't know" to "my boss" to "they do." The answer is very simple ... *you* manage your career. If you wait for "them" to do something, you are in for a long wait.

So, when should you start managing your career? Today, right now. In fact, with every design you produce, project you manage, briefing you give, Staff Summary Sheet you prepare and meeting you attend, you are shaping your career. All the things you do every day create an impression of you by your peers, subordinates and leaders. If your impression is good they will embrace your career goals and help you get there. If your impression is bad, your career potential will probably be limited, and your career journey will be lonely and difficult.

Once you have cleared the performance hurdle, there are tools you can use to enhance your competitiveness and achieve your career goals. Among these are: career planning, effective communication, mobility, education, professional development and broadening your skill base.

Career Planning. Just as successful organizations develop and depend on strategic plans to chart their course for the future, you must do the same for your career. The Air Force Civilian Training and Development Guide published by the Civil Engineer Career Program (CECP), Randolph AFB, Texas, will help. Contact the CECP at DSN 665-2666, visit them on the Internet at www.afpc.randolph.af.mil/cp/ or call the Career Program Information Hotline at DSN 665-2949.

Your plan should include the types of jobs you want in the future, the location (base level, major command, field operating agency, Air Staff), desired grades, and the training required to prepare for them. Do not underestimate your ability and set your career sights too low. Once you have your plan, review it with your supervisor and enlist his or her support in helping you meet your plan's goals. Finally, transfer your plan information to the annual Career Enhancement Plan (CEP) submission to the Civilian Personnel Office. This formalizes your career goals and training requirements for competition within the Civil Engineer Career Program. Filling out your CEP is critical to competing for CECP-sponsored training opportunities. Without it, you will not even enter the competition.

Effective Communication. Your peers', subordinates' and leaders' impression of you is formed primarily through your communication with them. Develop excellent verbal and written communication skills. You may have the

highest technical and analytical skills in your organization, but if you cannot effectively communicate your position or solution to a problem, you will not succeed. If your communication skills are lacking, find training opportunities and ask management to support your self-improvement efforts. Do not wait for someone to offer training to you. Take the initiative for self-improvement.

Mobility. A willingness to move to different parts of the country or overseas is essential for the career development of future Air Force leaders. Your career plan should include jobs at base level, major command, field operating agencies and Air Staff. Even if your career goal is to be a deputy BCE, you should have job assignments at more than one Air Force base, a major command and, if possible, one of the field operating agencies. A deputy BCE must possess a broad base of experience to be effective.

Education. Graduate-level education in business management, public administration or engineering management is necessary preparation for the transition to mid- and executive-level management. Even though graduate education is not required, to be an effective manager and to be the most competitive candidate for management positions, you should complete a master's degree in one of the areas mentioned. The CECP will help defray the tuition costs of a master's program. If you are not already enrolled in a program, contact the CECP today and get started.

Professional Development. This includes agency-sponsored continuing education, professional military education and professional licensing or registration. When offered one of these opportunities, take it. Everyone has an important job and can't afford to leave, but do not allow the "job trap" to keep you from attending training events.

Professional Military Education (PME) is essential for understanding the historical foundation of the Air Force as well as Air Force organization, operation and resource allocation. Your career plan should include Squadron Officers School, Air Command and Staff College and Air War College. If you cannot attend these courses in residence at Air University, take them at home, either through correspondence or seminar. Completing these courses will make you a more effective Air Force leader and make you much more competitive.

Finally, if you are in a discipline that offers professional licensing or certification, it is critical that you obtain it. This demonstration of professional development is highly regarded by peers, subordinates and leaders. It will open career doors for you.

Broadening Your Skill Base. Your career plan should include jobs in multiple functional areas within civil engineering, as well as a developmental assignment with another agency or at Senior Executive levels. If you are given the opportunity to serve on a team with another agency, take it. If you have the opportunity to temporarily sit in for the boss, take it. If there is a job that no one else seems to want where you work, volunteer for it. The more experience you can gain across civil engineering at base, major command, field operating agency or Air Staff level, the better leader and manager you will be.

Whose career is it anyway? It's yours! Make the best of it!

Tom Russell is the deputy base civil engineer at Patrick AFB, Fla. He recently completed the 10-month Executive Leadership Development Program, Senior Executive Leadership Course for 1999.

IPM Reduces Pests and Pesticides

by Wayne Fordham
HQ AFCEA, Tyndall AFB, Fla.

The Air Force continues to support Integrated Pest Management (IPM) techniques as a means to control pests while reducing pesticide use. The IPM approach to pest control uses regular monitoring to first determine if and when treatments are needed. In situations where controls are warranted, a combination of physical, mechanical, cultural, biological and educational tactics are employed to keep pest numbers low enough to prevent intolerable damage or annoyance. Least-toxic chemical controls are used as a last resort.

Installation Success Stories

Following are several innovative ideas currently being used by Air Force pest managers as part of their IPM programs.

Beale AFB, Calif. (9th CES)

Several hundred bats made their way into the Beale Air Force Base Commissary last year. To say the least, shopping was interrupted when the bats appeared to be attacking customers. In reality, the bats were swooping down at the shiny floor thinking it was water. Using homemade bat excluders at bat entry points, sealing the rain gutter/roof interfaces, and physically removing the bats achieved control of the problem. Later, the bat population was drawn away from base buildings by introducing special nesting boxes. Now the bats are assisting pest control efforts by doing what comes naturally — eating lots of insects.

Fairchild AFB, Wash. (92nd Support Group)

Airplanes at Fairchild AFB have a safer environment to operate in thanks to use of a falcon program. A contractor that uses falcons to harass and move pest bird species off the airfield provides support for a critical part of their Bird Aircraft Strike Hazard program.

Hickam AFB, Hawaii (15th CES)

Termites, especially Formosan termites, are a serious problem on military bases in Hawaii. The Sentricon system modernizes ground treatment by using bait methods versus expensive sub-slab conventional

methods. Using this new technology resulted in savings of more than \$500,000 in contract fees and successful elimination of termite colonies at 20 sites.

Minot AFB, N.D. (5th CES)

The Minot pest management shop was first in the Department of Defense to make its Pest Management Plan (and many other supporting documents) available on CD-ROM. Shop operations also benefited from using a shrouded boom sprayer, which allows for herbicide application in windy conditions without damage to nearby crops. The Air Force Civil Engineer Support Agency, which is responsible for the Air Force pest management program, recently provided each major command with a copy of Minot's Pest Management CD-ROM.

Nellis AFB, Nev. (99th CES)

Evaluation of a new type of herbicide sprayer, conducted under the Air Force Management Equipment Evaluation Program, has shown that significant labor and chemical savings are possible. This item will soon be available for purchase Air Force-wide.

Sheppard AFB, Texas (82nd CES)

The Sheppard pest control program uses an IPM approach that opts for biological control agents rather than traditional chemicals. One example is the use of nematodes — a microscopic, slender, unsegmented worm — to control fire ants. The U.S. Environmental Protection Agency, Region 6, recognized Sheppard's outstanding IPM program as a model in Texas for pesticide reduction.

U.S. Air Force Academy, Colo. (10th CES)

Cliff swallows began causing sanitation problems in a high-visibility area at the U.S. Air Force Academy. By placing Plexiglas sheets on areas the cliff swallows frequented, the base solved the problem without using lethal methods of control.

To learn more about the innovative ideas in this article, or for a brochure or fact sheet on IPM, contact the author at HQ AFCEA: e-mail wayne.fordham@afcesa.af.mil, or call DSN 523-6465.



A Mission Against Poverty — CEs Support New Horizons '99

New Horizons '99 is a series of humanitarian civic assistance training exercises sponsored by U.S. Southern Command in Miami, Fla. This year, the scope of the annual New Horizons exercise expanded to include hurricane recovery efforts in Honduras, El Salvador, Guatemala, Nicaragua and the Dominican Republic. About 20,000 Guard, Reserve and active duty service members were a part of this effort to provide training to U.S. forces while providing civic assistance and building military partnerships in Central and South America and the Caribbean.

The following two reports are representative of the missions undertaken by Air Force CEs during the New Horizons '99 exercises, which provided both training opportunities and a chance to make a difference in peoples' lives.

New Horizons Nicaragua '99

by Capt Stuart Mathew and
MSgt Gary Holtz
ANG, Portland, Ore.

Hurricane Mitch ... it wasn't in our thoughts when we requested an annual training deployment for 30 members of the 142nd Civil Engineer Squadron, Air National Guard, Portland, Ore. We made history, however, as we joined the 144th Civil Engineer Squadron, Fresno, Calif., in New Horizons Nicaragua '99.

Not since the Contra Affair has there been a significant American military presence in Nicaragua. Hurricane Mitch

changed all that in October 1998 when it ravaged the Central American countries of El Salvador, Guatemala, Honduras and Nicaragua. New Horizons Nicaragua '99, supported by Joint Task Force Esteli, was a humanitarian exercise for Hurricane Mitch recovery operations. The Ohio Army National Guard led the exercise, which was dedicated to construction of schools and clinics, drilling fresh water wells and repairing hurricane-damaged roads.

The 30-member team from the 142nd CES and 31 civil engineers from the 144th CES deployed for 17 days in May to build the base camp which would support up to 400 Army, Air Force and Marine engineers and medical personnel deployed on two-week rotations.

The camp started as an abandoned Nicaraguan military installation with little usable infrastructure, including buildings in various states of disrepair, a sanitary sewer system of questionable integrity and limited commercial power.

Within nine, 12-hour workdays, the Prime BEEF team completed over 100 work orders such as building tent floors, including modular floors for the forward base camp, completely rebuilding roofs and trusses and rewiring all 13 buildings for power and lighting. In addition, the team constructed a hardback toilet facility, built loading docks to support safe loading and unloading of vehicles and supplies, built a burn pit, repaired leaky roofs, built a laundry facility and repaired the sanitary sewer system,



Prime BEEF members construct modular tent floors for transport to a forward base camp. (Photos courtesy 142nd CES)



SMSgt Tommy Guerra, 144th CES, and SSgt Rex Rekow, 142nd CES, install a secondary feeder to the billeting area as part of the complete rewiring of the secondary distribution system for the base camp.

including building a field-expedient septic tank.

Weather conditions in the area were not unusual for that time of year, but they were unusual to us coming from the Northwestern U.S. Most days in Nicaragua the heat condition was a Category 5 (very hot and humid). The



MSgt Chris Bryant, 142nd CES, repairs a termite-damaged roof purlin in the chapel. There was extensive termite damage to the wood structures at the base camp.

recommended work schedule for Category 5 heat is 20 minutes work, 40 minutes rest. Under these extreme conditions, the team focused on safety, especially heat stress. Everyone looked out for their co-workers and made sure plenty of liquids were available. The result was no lost work time due to the heat conditions.

Much attention was paid to preparing the camp for the impending torrential summer rains. Roof repairs were a high priority, as was ensuring positive drainage away from occupied areas. During the few days it rained while we were there, the soil turned into a muddy quagmire. We kept logistics personnel busy ordering gravel, as we placed it around camp faster than it could be delivered.

Prime BEEF received outstanding support from Marine Wing Support Squadron 271, Cherry Point, N.C. Among the many tasks they were responsible for was providing potable water for the base camp — they were our allies in planning and installing utility services. We coordinated our activities with them since they were providing the water for many of our improvements (i.e. laundry, ice machine and toilets).

The Prime BEEF capabilities exhibited during construction of the

camp demonstrated the tremendous value Air Force civil engineering has and can offer to joint operations such as JTF-Esteli. In addition to meeting the basic mission requirements, quality of life was enhanced more than many members of the other Services had witnessed in a field environment. For many, it was their first exposure to Air Force standards — and they extended their gratitude on a daily basis.

The deployment was tough but everyone felt a sense of accomplishment and pride from participating in the New Horizons Nicaragua exercise. Their long hours of hard work will reap many benefits to a country devastated by Hurricane Mitch.

New Horizons Bolivia '99

*Combined Task Force New Horizons
Public Affairs*

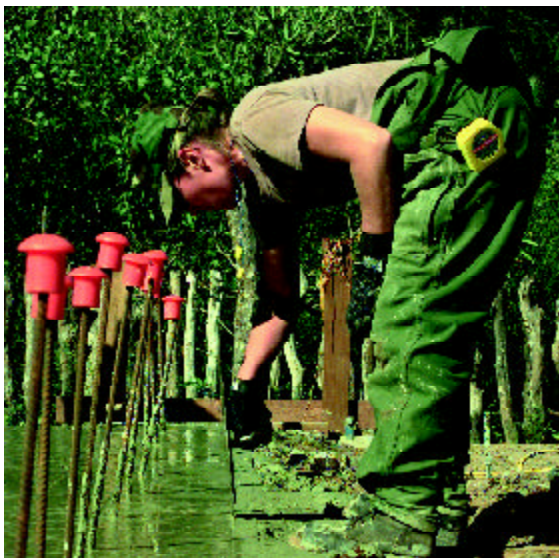
The 819th RED HORSE Squadron, Malmstrom Air Force Base, Mont., drilled the deepest well in U.S. Air Force history during New Horizons Bolivia '99. The 819th RHS was part of a multi-service, multi-national team working on several construction projects in southeastern Bolivia, including three two-room schools, a two-room medical clinic, road improvements and two solar-powered fresh-water wells.

It was while drilling the two solar-powered, fresh-water wells that the RED HORSE team earned its place in the record books; first with a 1,049-foot well at El Algodonal in July, then with a 1,109-foot well at Capirenda in August.

Besides the record-breaking depths, these were the first solar-powered wells in U.S. military history. According to Lt Col Sean Saltzman, commander of the exercise and deputy commander of the 819th RHS, the first well is exceeding all expectations by delivering 9 to 10 gallons of fresh drinking water per minute.

"We were hoping to get at least 5 gallons per minute. So we've almost doubled our expectations," said Saltzman.

The solar-paneled drinking water stations are expected to operate



(Above) SSgt Amy Pope, 819th RHS, adds finishing touches to a concrete floor during construction of a two-room school in Camatindi, Bolivia. (Photo by TSgt Katherin Bryson)



(Right) SSgt John Carter, 819th RHS, hammers a nail into the forms for the wall structure of a two-room school in Camatindi, Bolivia. (Photo by TSgt Katherin D. Bryson)

(Right) TSgt Mike DeShon, NCOIC of well drilling for the 819th RHS, explains the operation of the SS-135 drilling machine to Brig Gen Earnest O. Robbins, who visited the New Horizons '99 team in June. The 1,049-foot well was the first solar-powered well in U.S. military history. (Photo by TSgt Scott Wagers)



independently for 10 to 20 years, providing free access to fresh water for people in Bolivia's remote "Chaco" region.

"By using solar power, there will be less wear-and-tear and fewer moving parts to break," said TSgt Mike DeShon, NCOIC of the well-drilling team. DeShon has drilled over 100 wells in seven different countries and has built his career solely within five different RED HORSE units.

DoD does not normally recommend military crews drill wells beyond 600 feet during a

troop engineering exercise. The team secured additional support from the U.S. Army Corps of Engineers at Mobile, Ala.

Drilling deep-water wells is unpredictable and dangerous — as depth increases, so do safety concerns. DeShon's team had to hoist 20-foot sections of 350-400 lb. drilling rod and connect them to the top of the main drilling shaft. Operating at a depth of over 1,000 feet, the drilling rig ends up supporting over 11 tons of linked-together steel rod.

The New Horizons Bolivian-U.S. task force construction took place from May through September. In addition to drilling the wells, engineers used runway construction techniques to improve drainage and erosion control on a 14-kilometer stretch of dirt road that connects a small town to a main highway. They erected a bridge and poured concrete lanes for two river-fording locations.

The team poured over 42 cubic yards of concrete to form the walls of the first school, which they finished in July. For the engineering team, some of the most back-breaking work was "busting" cement bags. Each bag, weighing 110 lbs., had to be lifted, ripped open and dumped into the concrete mixer.

"Building these schools is great practice for us," said A1C Chris Luna, 819th RHS heavy equipment operator apprentice. "These projects give us the chance to practice using the concrete machines. It's definitely been good training for our new guys."

Brig Gen Earnest O. Robbins, The Air Force Civil Engineer, toured the poverty-fighting projects in South America, visiting the New Horizons Bolivia team on June 29. Robbins said he felt the New Horizons projects gave the troops a lot of job satisfaction.

"They feel good about their training and they've done something good for the Bolivian infrastructure. How often do you get to learn about a new culture and make a positive contribution?" he said. "I believe that exercises like New Horizons Bolivia '99 will continue for a long time into the future."

RED HORSE deploys to Iceland

by 1st Lt Stock Dinsmore and
Lt Col Mike McCarthy
ANG Virginia Beach, Va.

Members of the 203rd RED HORSE Flight participated in Exercise Northern Viking '99 at Naval Air Station Keflavík, Iceland, in June of this year. Exercise Northern Viking '99 focused on training for unconventional threats such as terrorism and information warfare. It included participants from all branches of the U.S. military, German, Danish and British forces. The mission for the 203rd was to provide combat-ready construction capability in response to the exercise threats.

The 203rd was tasked with constructing a 50-by-150-foot Super K-Span building, to be used by the NAS as a hazardous waste treatment/storage facility. A K-Span building is a free-standing metal structure that doesn't require any interior support. Shaped much like Quonset huts of the past, K-Spans are primarily used for storage. They offer excellent semi-permanent and inexpensive all-weather protection for materials and equipment. The 203rd RHF has constructed or helped construct K-Span buildings in places such as Israel and Korea.

Beginning in late May, the unit deployed its K-Span machine, a crane and several other pieces of support equipment via an Air National Guard C-5 Galaxy aircraft to NAS Keflavík. This provided training in deploying heavy engineering equipment for the aircrew as well as the engineers.

An eight-person advance team led by Maj Doug Crawford arrived at NAS Keflavík on June 5 to insure all materials and equipment were on site and to begin construction. A deployment of 25 addi-

tional personnel arrived the following week.

The team took advantage of relatively good weather during the first few days of the deployment, constructing approximately 75 percent of the main building, less endwalls. Weather during the remainder of the deployment proved challenging. Temperatures in the 40s and 50s coupled with extended periods of rain and sustained winds of 25 to 35 knots made it difficult to handle the sheets of steel for the K-Span. Once assembled, these sheets are 5 feet wide and 50 feet long. On a windy day, they are impossible to set in place in a safe manner. In fact, as one crewmember attested, they make one heck of a kite when attached to a 15-ton crane.

"This was a good chance for the unit to operate in a climate that was vastly different from that of our typical

knowledgeable crew, a 5,000 square foot bare-bones facility can be completed in about seven working days for less than \$10 per square foot. RED HORSE teams are the primary holders of this capability in the Air Force, although other units have been trained.

Material cost for construction of this facility was about \$200,000. Even factoring in the team's travel and per diem costs, the government saved a substantial sum compared to what it would cost to build the same facility using a private contractor.

The 203rd completed more than was required during their two-week deployment. In addition to the K-Span structure itself, the team installed a majority of the building's ventilation and fire suppression systems. They provided crane services for numerous other small projects around the station as well. These

included removing a dish antenna, installing a large rooftop exhaust fan and load testing the station's rigging gear.

When the weather was too severe to work on the K-Span facility, several personnel volunteered to perform additional tasks around the station, including relocating a large hydraulic vehicle lift inside the Transportation Division's vehicle maintenance garage and fabricating sections of a skateboard/rollerblade ramp for the station's recreation area.

Construction deployments around the world are a way of life for the 203rd. This project was sandwiched between deployments to Kuwait, Honduras and Qatar, proving that the engineers of the 203rd RHF are willing and able to meet the construction needs of the U.S. Air Force.



A crane lowers panels into place during RED HORSE construction of a Super K-Span building at Naval Air Station Keflavík, Iceland. (Photo courtesy 203rd RHF)

deployments," said CMSgt Gerald DeVault, 203rd RHF Airfields Flight NCOIC.

Once the primary panels were in place, concrete was poured at the side wall lines to anchor the building. End wall construction, including garage-type doors, completed the structure.

With good weather and a



HazMat Emergency Response Training

Increasingly Critical in Light of Today's Terrorist Threat

by CMSgt Jim Podolske
HQ AFCEA, Tyndall AFB, Fla.

The threat or use of hazardous materials as weapons of mass destruction is one of the most alarming of all transnational threats. The bombings at Oklahoma City, Khobar Towers and Atlanta's Olympic Park are just a few instances where hazardous materials were used to destroy property and injure or kill innocent people.

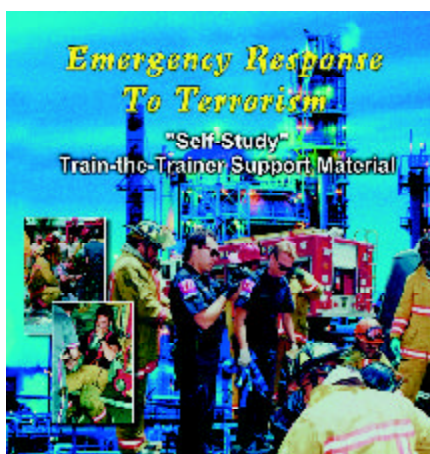
To meet the terrorist challenge and better prepare emergency responders, the Air Force Civil Engineer Support Agency has partnered with the National Fire Academy to capitalize on training programs developed by the Department of Justice and the Federal Emergency Management Agency. These programs were created following passage of the Defense Against Weapons of Mass Destruction Act of 1996, Public Law 104-201 (also known as the Nunn-Lugar-Domenici Act).

Here's a look at the training programs that have been distributed to the medical community, security forces, explosive ordnance disposal flights, readiness flights and all DoD fire departments.

Emergency Response to Terrorism (Self-Study) Course.

This self-paced, paper-based course is designed to provide basic terrorism

awareness training to emergency responders. The Self-Study course can also be taught to groups of students using the PowerPoint presentation



included on the Self-Study Support Material CD-ROM. An experienced instructor can complete the training in two to three hours using this method.

Course Content. The Self-Study course provides a basic overview of the following: definition and historical background of terrorism; recognizing suspicious circumstances and identifying key indicators (outward warning signs or cues); implementing self-protective measures (time, distance, and shielding); initial scene control; and making appropriate notification (activating response resources based on local/state emergency plans).

Target Audience. The target audience for this course includes fire, emergency medical, HazMat, incident command and law enforcement responders.

Who Can Teach the Course? Any DoD HazMat Train-the-Trainer course graduate is authorized to teach the awareness course material. Additionally, any experienced HazMat emergency responder who is DoD-certified at the HazMat awareness level is also authorized to teach the self-study course material.

Emergency Response to Terrorism (Basic Concepts) Course.

This two-day course is designed to prepare first responders for terrorist-related incidents, primarily at the operations level. It focuses on life safety and self-preservation.

Course Content. The Basic Concepts course provides an overview of the following: understanding/recognizing terrorism; implementing self-protective measures; scene control; tactical considerations; and incident management.

Target Audience. The primary audience includes fire, emergency

medical, HazMat, incident command and law enforcement responders.

Who Can Teach the Course? Only DoD HazMat Train-the-Trainer course graduates or National Fire Academy Emergency Response to Terrorism

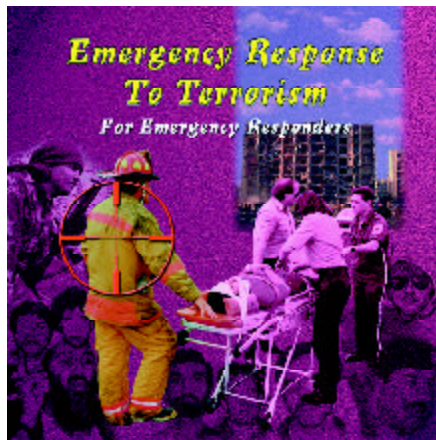


“Basic Concepts” Train-the-Trainer course graduates are authorized to teach this 16-hour course.

Emergency Response to Terrorism (Multimedia) Course.

This fully interactive, computer-based training program is designed to help emergency responders understand their role and increase their chances for safe and successful responses to incidents involving terrorism.

Course Content. The Multimedia course combines several learning objectives taught in the Self-Study and Basic Concepts courses and also



includes the terrorism competencies listed in NFPA Standard 472: *Standard for Professional Competence of Responders to Hazardous Materials Incidents (1997 edition)* at the awareness, operations, technician and incident commander levels.

Target Audience. The target audience includes fire, emergency medical, HazMat, incident command and law enforcement responders.

Who Can Teach the Course? This is a stand-alone, self-paced course that does not require an instructor. However, students who need assistance should contact a DoD HazMat Train-the-Trainer course graduate.

Students who complete the terrorism training courses are eligible to receive a Department of Justice/Federal Emergency Management Agency training certificate for the Self-Study and Basic Concepts course and a DoD training certificate for the Multimedia course. For additional information, refer to Chapter 6 of the 1998 CerTest Procedural Guide.

Hazardous Materials Technician Emergency Response Training Program.

We are proud to announce the release of the Hazardous Materials Technician multimedia training program. Each Air Force major command and DoD Service Component Fire and Emergency Services representative was provided one copy of this program during the 1999 DoD Fire and Emergency Service Conference in Kansas City, Mo., in September.

Course Content. This powerful, interactive multimedia training program is designed to train and certify emergency responders at the HazMat technician level. Most importantly, this program, along with local hands-on training exercises, prepares emergency responders to take offensive actions necessary

to safely and successfully detect, assess, contain and control dangerous hazardous material releases. This program also includes an Emergency Response to Terrorism training module directed at today’s most alarming emerging threat — terrorist acts using weapons of mass destruction.

This program complies with OSHA 1910.120q6(iii) and NFPA 472.

Target Audience. The fire department’s HazMat emergency response team is the primary target audience for this course.

Who Can Teach the Course? This is a stand-alone, self-paced course that does not require an instructor. To become DoD-certified at the technician level, students who complete this



training course are also required to pass the CerTest computer-based testing program final exam along with the required performance tests listed in the performance test supplement found on the 1998 HazMat Support Material CD-ROM (Version 3.0).

For questions concerning these training courses, contact CMSgt Jim Podolske or TSgt Bruce Grabbe at DSN 523-6321 or 6221, respectively, or e-mail jim.podolske@afcesa.af.mil or bruce.grabbe@afcesa.af.mil. Requests for additional copies of these training CDs must be made in writing to HQ AFCESA/CEXF.

CE PEOPLE

Kids learn carpentry at CE workshop

by TSgt John Schamp
Los Angeles AFB, Calif.

Families at Los Angeles Air Force Base, Calif., traded their Saturday morning cartoons for a chance to build Bird Barns (a.k.a. birdhouses) at a "CE Kids Craft Workshop" in June. The 61st Civil Engineer Division sponsored the workshop.

Thirty-seven children, ranging in age from 5 to 10 years, were provided an opportunity to visit the CE maintenance shop area and learn about construction safety, as well as enjoy some quality family time.

The morning started with a welcome from Col Dieter Barnes, 61st Air Base Group commander. "Anyone can build a bird house, but it takes a special kind of a carpenter to build a Bird Barn," he said.

Participants were given a short safety briefing by the 61st CED's services contractor, TrendTec, on using the right tool for the job, the importance of eye and ear protection, keeping the work area clean and the safety of others in the work area. This

was followed by a tour of the CE Carpenter Shop.

Then, the local neighborhood awakened to the sound of tapping hammers. The junior carpenters and their adult helpers, outfitted with hammers, nails, sandpaper and a little creativity, proceeded to construct their Bird Barns.

For the next hour, kids hammered, sanded, and hammered some more. They had a great time trying out their new skills while attempting to build the best-looking Bird Barn! The final product was given a quick coat of waterproofing and a seal of

approval from the CE staff.

Two local material supply stores provided toolboxes and other items that were given away to the kids. The afternoon ended with a barbecue of hot dogs, hot-links, chips and soft drinks, and certificates of completion of the "CE Kids Craft Workshop" presented by "Sparky" the Fire Dog.

The program was so successful, the 61st CED is planning another "CE Kids Craft Workshop" for this fall.

TSgt John Schamp is the NCOIC, Quality Assurance Evaluation, Fire Safety and Readiness, 61st Civil Engineer Division, Los Angeles AFB, Calif.

CE selected top enlisted IMA

Air Reserve Personnel Center Public Affairs

SMSgt Troy Basham was recently named the Reserve's top enlisted Individual Mobilization Augmentee by the Air Reserve Personnel Center. Basham, a fire protection superintendent for the 6th Civil Engineer Squadron, MacDill Air Force Base, Fla., was presented the 1999 Outstanding Individual Mobilization Augmentee award in June.

"Sergeant Basham lives and breathes the fire department," said 6th CES fire chief John Warhul II. "He's a fireman's fireman."

As part of his IMA duties, Basham conducts a wide range of training, including rape prevention and personal safety, ropes and rescue techniques, helicopter medical evacuation safety and landing zone preparation, and water and swamp rescue and recovery operations. "He's an excellent trainer," Warhul said. "He has a lot of patience."

Basham coordinated a multi-agency mass casualty exercise for the City of Tampa, Fla.; Coast Guard; Air Force; Federal Bureau of Investigation; and other state and local agencies. He also coordinated and provided operational leadership for firefighting strategy on a large brush fire.

Basham volunteers his off-duty time at a summer camp for pediatric burn victims and is actively involved in programs for troubled and disadvantaged children in local public schools. He serves as the team coordinator for the medical contingent to the Tampa Police S.W.A.T. Team in his civilian employment.



Lt Col Norman Albert, Space and Missile Systems Center executive to the commander, builds a Bird Barn with his daughter Katy at the 61st CED "CE Kids Craft Workshop," Los Angeles AFB, Calif. (Photo by Amn Shaad Madison)

1999 Lieutenant Colonel-Selects

Congratulations to the following Air Force civil engineer officers on being selected for promotion to lieutenant colonel.

Gary B. Arnold
Joe G. Ballard
Franklin W. Baugh
Judith D. Bittick
John K. Borland
Karl S. Bosworth
Aaron C. Bridgewater
Richard M. Brubaker
Craig F. Campbell
David L. Carlon
Michael P. Conner
Rodney L. Croslen
Robin Davis
Ronald J. Deak
Maria J. Dowling*
Randy D. Eide
Karl L. Freerks
Claude V. Fuller, Jr.
Bryan J. Gallagher*
Liesel A. Golden*
Timothy S. Green*

Steven E. Hammock
William S. Harris
Michael R. Hass
Bart H. Hedley
Kyle E. Hicks
George S. Horan
James E. Hubbard
Brian D. Huizenga
Kurt J. Kaisler
Thomas J. Kaldenberg
James R. Kasmer
Stephen S. Kmicik
William A. Kolakowski
Mark D. Kramer
Thomas M. Laffey
John W. Laviolette
Peter C. Leahy**
Myron V. Majors
Leslie C. Martin
David B. McCormick
Gregory L. Melton

Ann E. Mercer
Susan E. Mitchell
Robert E. Moriarty
Duane A. Padrick
Glen J. Pappas
Spencer H. Patterson, Jr.
Alex S. Peat
Gregory M. Perkinson
Mark A. Pohlmeier
David L. Reynolds
Marc D. Richard
Patrick E. Ryan
Norman P. Schaefer
Gregory J. Schmidt
Gary J. Singler
Gregory A. Smith
Patrick J. Smith
James T. Sohan
Richard B. Stonestreet
Mark S. Tissi
Jonathan E. Wasche

James E. Welter
Frederick L. Williams
David R. Winkler
Dennis D. Yates
Brian D. Yoltiz*

*Below the Promotion Zone
**Contracting Officer

1999 Major-Selects

The following Air Force civil engineer officers were selected for promotion to major. Congratulations to all on their leadership and achievement.

Roy Alan C. Agustin
Scott T. Allen
Myron H. Asato
John M. Balzano
Barton V. Barnhart
Rick A. Blaisdell
Anthony S. Bridgeman
Steven E. Brukwicki
Thomas J. Carroll III
Carol A. Cluff
William J. Cronin IV
Lea A. Duncan
Patrick F. Fogarty
Jeth A. Fogg
Frank Freeman III

Douglas M. Hammer
Markus J. Henneke
Joel N. Holtrop
Crimley S. Hoover
Mark Inguaggiato
Gus S. Kirkikis
Rowene J. Lant
Charles E. Lewis
Gregory P. Long
Raymond W. Marsh
Mark J. Mittler
Anthony E. Muzereus
Anthony L. Ordner
Edwin H. Oshiba
James P. Page

Kathyleen M. Pare
Peter A. Ridilla
Gregory E. Rollins
Gregory J. Rosenmerkel
Peter A. Sartori
Dorothy Ruth Schanz
Navnit K. Singh
Mark P. Smekrud
Elizabeth A. Sydow
Andrew A. Thorburn
Jeffrey M. Todd
Nelson Toy
David F. Vicker
Thomas E. Wahl
Harry W. Washington Jr.

Neil D. Wentz
Douglas P. Wise
Kevin K.Y. Wong
Timothy S. Wood
David A. Young
Stephen T. Ziadie

A Tradition of Excellence

by Lois Walker
HQ AFCESA Historian, Tyndall AFB

The annual Air Force Civil Engineer Awards program recognizes civil engineer organizations and individuals for outstanding achievements and contributions to the Air Force mission. This is the second in a three-part series of articles on the civil engineers whose contributions we remember as we honor others in their name each year.

Major General Joseph A. Ahearn Enlisted Leadership Award

Honors Maj Gen Joseph A. Ahearn, who served as Director of Engineering and Services from March 1989 to January 1992. This award recognizes the civil engineering chief master sergeant who displays the most exemplary leadership qualities. A winner and a runner-up are selected.

The award reflects that Gen Ahearn was a champion of his chief master sergeants and the enlisted force. He declared his inaugural year as director as Year of the Chief, and initiated programs that included chiefs in the decision processes of civil engineering.

Gen Ahearn was born in 1936 in Galesburg, Illinois. He entered the Air Force through the Reserve Officer Training Corps program in 1958 after graduating with a B.S. in civil engineering from the University of Notre Dame. His early assignments included engineering jobs at Vandenberg Air Force Base, Calif., Goose Bay Air Base, Labrador, and HQ Eighth Air Force at Westover AFB, Mass. He received a master's degree in engineering administration from Syracuse University in 1967 and was assigned to HQ European Security Region in Frankfurt, West Germany.



Maj Gen Joseph A. Ahearn

During the Vietnam conflict he served as deputy commander and then commander of the 554th RED HORSE Squadron at Cam Ranh Bay AB, Republic of Vietnam. Following subsequent tours in Alabama and Texas, he served three assignments at Air Force headquarters, first as an action officer in the Directorate of Engineering and Services, then as chief of the Housing Division and, following graduation from the Industrial College of the Armed Forces in June 1979, as chief of the Programs Division. During



his years in programs, the Air Force experienced an era of unprecedented growth compared to the austerity of the post-Vietnam era.

In 1983, Gen Ahearn returned to Europe, this time as the DCS for Engineering and Services at HQ United States Air Forces in Europe. During his tour in USAFE, he oversaw the construction program to bed down ground-launched cruise missile units in five European nations, worked to bring USAFE up to modern standards, and became one of the foremost supporters of CE readiness programs.

In June 1986, he returned to HQ USAF as the Deputy Director of Engineering and Services. Three years later, in March 1989, he became the Director of Engineering and Services, and subsequently The Civil Engineer.

Gen Ahearn "kept civil engineering flying in a storm of change." He spearheaded civil engineer support to the Gulf War. He successfully led civil engineering through the challenging reorganization, restructuring and downsizing of the early 1990s. He was instrumental in creating the Air Force Center for Environmental Excellence and in restructuring the Air Force Civil Engineer Support Agency, realigning policy-level missions at the Pentagon and operational programs at the field operating agencies. He increased the size and stature of the Readiness Challenge competition and encouraged commands to beef up home station training.

In February 1991, the Directorate of Engineering and Services was realigned under the Chief of Staff and redesignated The Civil Engineer. The services partner of civil engineering was separated and was integrated into the Morale, Welfare and Recreation community.

Gen Ahearn retired in 1992. He and his wife Nona make their home in Colorado.

Major General William D. Gilbert Award

Honors Maj Gen William D. Gilbert, Director of Engineering and Services from July 1978 to August 1982. This award recognizes the significance of the efforts of staff action officers. Gen Gilbert exemplified professional staff work, from his days as an action officer through his time as director. Three awards are

presented, to an officer, an enlisted member and a civilian.

Born in 1924 in Downsville, La., Gen Gilbert began his military career in 1943 by enlisting in the U.S. Army Corps of Engineers. He served with combat engineering units in North Africa and the China-Burma-India theater during World War II. He was released from military service in March 1946, but reentered three months later, transferring to the Army Air Forces. He was commissioned in September 1949 and was called to active duty as a second lieutenant in October 1950.

Following several assignments as a personnel officer, Gen Gilbert entered the civil engineering career field in 1963 and subsequently served as base civil engineer at Davis-Monthan AFB, Ariz., and at Moron AB, Spain. He received bachelor's and master's degrees in business management from The George Washington University in 1962 and 1967, and also graduated from the Industrial College of the Armed Forces in 1967.

In August 1967 he took his first assignment at the Pentagon, serving as executive officer to the deputy director for construction. In 1968 he was named executive to the Director of



Maj Gen William D. Gilbert

Civil Engineering, Maj Gen Guy Goddard. Following this tour in Washington, Gen Gilbert served as director of the Civil Engineering Center at Wright-Patterson AFB, Ohio.

Gen Gilbert made significant contributions as the DCS for engineering and services at two major commands, Military Airlift Command and HQ Pacific Air Forces, in the 1970s. At PACAF, he helped the command

successfully transition from a wartime mission to a peacetime operation. He oversaw programs to significantly upgrade dormitory facilities and family housing. He established centers for personnel returning from Vietnam and for Southeast Asian refugees at Clark AB, Philippines, and Wake Island. During his tenure he integrated services as a full member of the engineering and services team.

Gen Gilbert returned to Washington in 1975 as the Deputy Director of Civil Engineering and Services under Maj Gen Robert Thompson, and on July 1, 1978, became the Director of Engineering and Services. As deputy director and director, Gen Gilbert guided civil engineering through the turbulent post-Vietnam era. The Air Force received greatly increased funding to construct dormitories, build military family housing, and acquire more than 1,000 foreign government houses.

Under his leadership, civil engineers supported the Israeli airbase program, bedded down GLCM units in Europe, housed and fed Cuban refugees during Operation Red, White and Blue at Eglin AFB, and constructed the Space Shuttle facility at Vandenberg. Gen Gilbert expanded the Prime BEEF program and established a training complex at Eglin AFB (predecessor of today's Silver Flag Exercise Site) to promote hands-on experience in contingency skills. As chairman of the board of directors for the Air Force Commissary Service, he directed a

\$240 million commissary rebuilding and modernization program.

Gen Gilbert retired from active duty in 1982. He and his wife Dorothy make their home in Louisiana.

The Harry P. Rietman Award

Honors Harry P. Rietman, who retired in March 1985 after serving 12 years as the Associate Director of Engineering and Services. The Rietman Award recognizes superior job performance by Air Force senior civilian civil engineer managers.

When Rietman joined the civil engineer family in 1955, he brought an unusual balance of experience with him, having served with each of the military services except the Coast Guard. Rietman was a private in the Marine Corps from 1945-1946, a lieutenant in the Army Corps of Engineers from 1950-1952, and had worked as a civilian employee for both the Navy and the Air Force. He earned a B.S. degree in architectural engineering and master's degrees in both architectural engineering and mathematics from Virginia Polytechnic.

Rietman, a native of Cincinnati, spent his entire Air Force civil engineering career at the Air Staff. He first came to work for Maj Gen Lee Washbourne, the Assistant Chief of Staff for Installations, as a management engineer in the Maintenance Division. In 1957, he became chief of the Operations Branch of the Civil Engineer Programs Division. He began his long career as Associate Director in 1973.

Described as soft-spoken, reliable, effective and trustworthy, Rietman was best known for his ability to win Defense Department support and Congressional funding for facilities, manpower and civil engineering support initiatives. Of great importance to civilian engineers, he chaired the group that developed the Engineering and Services Civilian Career Management Program (now the Civil Engineer Career Program).

Rietman was known for his expertise and savvy leadership in the programming business. He perpetually led the budget battle to secure increased funding for military family housing, unaccompanied personnel housing, and other quality of life facilities. He promoted the importance of workplace and living conditions as they relate to combat readiness and spearheaded a major housing improvement program to construct 2,500 new housing units in the mid-1980s. He helped develop the first Air Force civil engineering strategic plan, and was a proponent of the civil engineer research and development program. In addition to his other duties, he served for seven years as a member and sometimes chairman of the Air Force Board of Correction of Military Records.

Rietman and his wife Mary make their home in Virginia.



Harry P. Rietman



An explosive ordnance disposal team performs a line sweep for surface ordnance in the morning sun at Balboa West training range near Howard Air Force Base, Panama. EOD members are clearing the range in preparation for transfer of the Panama Canal Zone later this year. (Photo by SrA Waymon Hubbard)