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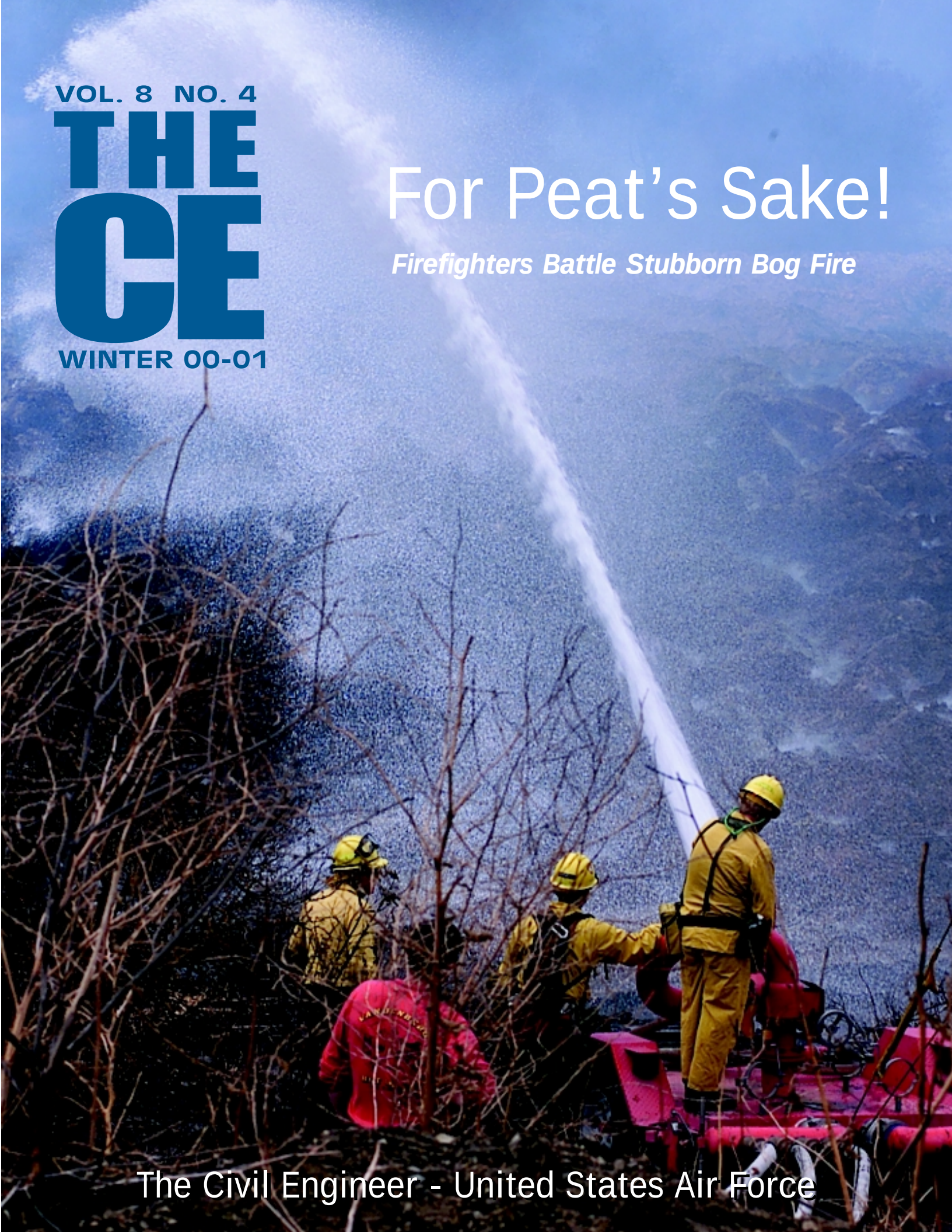

For Peat's Sake!

Firefighters Battle Stubborn Bog Fire

The Civil Engineer - United States Air Force

FROM THE TOP

Linking Planning to Programming

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

What will the Air Force be like in the year 2010? 2025? Will we still be an "expeditionary" Air Force? Will we have more unmanned aerial vehicles and fewer pilots? Will we have more space launch infrastructure? What is the TEMPER tent of the future? Will the current structure of our civil engineer squadrons be appropriate, or do we need to reorganize? What is the gap between where we are now and where we want to be?

To be relevant in tomorrow's Air Force, we must understand how our service will evolve and modernize and develop plans to keep pace with this change. Where do we need to be in 10 years, or in 25 years, and how do we get there? The newly released Civil Engineer Strategic Plan (CESP), Volume 2, *Mission and Modernization*, guides the way for our efforts. Coupled with Volume I of the CESP, *Future Security Environment and Planning Implications*, it lays the framework for modernization plans within our five civil engineer core competencies: installation engineering, expeditionary engineering, emergency services, environmental leadership and housing excellence.

How will we connect the plan to our programs? Volume 2 gets down to the nitty-gritty of where we're going. It outlines our vision and establishes a process for moving our organization from where we are now to where we want to be in the year 2025. It identifies gaps between this current and future state, and calls for the establishment of process action teams to review and validate the gaps, develop modernization plans to close those gaps, and establish performance measures to track progress against plans. Our Air Staff division chiefs, as champions of our core competencies, will lead the way through an IPT process with full representation from the MAJCOMs and squadrons.

Language from our CESP and our core competencies was extracted "verbatim" and placed in the Annual Planning and Programming Guidance (APPG) to show the linkage between our planning and programming efforts. Without an adequate planning process that helps us articulate our requirements, we cannot expect much support during the programming process. By keeping these two processes closely linked we can also better measure our successes and failures.

Copies of Volume II were provided to the major commands in January for distribution. Read it, understand it and use it in your own planning efforts.

Predict the future we can't, but as Air Force civil engineers we must understand our role in tomorrow's Air Force. To do that, we must study, understand and support the Air Force vision and strategic plan.

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THE CE

The U.S. Air Force Civil Engineer

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On the cover ...

Firefighters use a water cannon to soak the ground where an underground peat bog fire burns on Vandenberg Air Force Base, Calif. *(Photo by SSgt Janice H. Cannon)*

Col J. Carlton Tickel is the Air Force Space Command Civil Engineer, Headquarters AFSPC, Peterson Air Force Base, Colo. In this interview with The CE *magazine, the colonel describes some of the exciting and unique challenges his civil engineers take on in a command where they "fly" missiles and satellites instead of airplanes. With sites all over the world, the sun never sets on AFSPC or its civil engineer mission, providing …*

A Steady State of Readiness

Col J. Carlton Tickel

The CE: How do Air Force Space Command civil engineers support the warfighter?

Colonel Tickel: Our civil engineers are very much a part of the AEF [Aerospace Expeditionary Force]. Air Force Space Command civil engineers deploy to the same locations as the other commands. At five of our main bases and the headquarters we have multiple Prime BEEF UTCs [unit type codes], including firefighters and explosive ordnance disposal, that support theater commanders and their war plans. We support every one of the unified commands, and we support other agencies simultaneously, such as the National Security Agency. We also support the theater commanders-in-chief with in-place forces at eight main bases and about 125 sites worldwide.

AFSPC is quite unique in that we have three separate and distinct missions. We have the nuclear deterrent mission with our intercontinental ballistic missiles (ICBMs), which are the Air Force's and the nation's biggest bullet, so to speak. We are definitely a warfighting command in that sense, with our forces deployed at Malmstrom, Minot and F.E. Warren Air Force bases.

ΘThe second mission we have is space launch at Cape Canaveral/Patrick and Vandenberg AFBs. They don't have a rocket being launched every day, but there are a lot of exciting things going on daily in preparation for multimillion dollar missions that are absolutely critical to our nation's defense.

The third piece of the AFSPC mission, which is at Cheyenne Mountain Air Station and Peterson, Schriever and Buckley AFBs, and many sites around the world, involves space surveillance, space control, initial tactical warning and tactical assessment for incoming ICBMs or sea-launched ballistic missiles.

So we have the readiness mission, like other commands, and lots of locations, like other commands. AFSPC is the fourth largest command in the Air Force in terms of facilities, and we are spread out world wide, which creates a challenge for our headquarters staff at Peterson. All of our missions are, essentially, 24 hour-a-day, seven day-a-week, 365 day-a-year missions. Our mission doesn't stop; it doesn't fly away. It is very rewarding, and lots of fun.

The CE: Peterson AFB will soon be home to a new U.S. Space Command/ NORAD [North American Aerospace Defense Command] headquarters and an Army Space Command headquarters. How are AFSPC civil engineers involved in the construction of this consolidated military complex?

Col Tickel: U.S. Space Command is growing. It's a unified command with Army, Navy and Air Force components. The Air Force component is Fourteenth Air Force, headquartered at Vandenberg. We provide support to them through policy and guidance. The Army Space Command component is already in Colorado Springs in leased facilities. Naval Space Command also has a large presence in Colorado Springs. Its headquarters is in Dahlgren, Va.

The two new buildings and the existing AFSPC Headquarters building will form an ellipse — a space complex, so to speak — on Peterson. Construction is going on right

now. It will be finished in late 2002. It will house about 700 Army folks and about 900 U.S. Space Command and NORAD folks.

As far as I know, this is the first project of its kind where the Army and the Air Force have partnered to build an Army building and an Air Force (Joint Command Headquarters) building simultaneously under the same contract, versus separate contracts. The Corps of Engineers is responsible for it, with us. It's a unique partnership.

The management team responsible for this includes a four-star, General [Ralph E.] Eberhart, commander of U.S. Space Command, NORAD and Air Force Space Command, plus four three-stars, plus the program management office. There is about $65 million dollars in construction, plus another $40 to 50 million in communications, and another $30 to 40 million in systems and mission communications, all being integrated in one construction effort.

The CE: Did you use the pre-wiring concept for the building, or was that included in the MILCON?

Col Tickel: Absolutely. It's essential and it has been worked from the get-go. Standard pre-wiring is really pretty easy for us. It's the pre-wiring of the mission systems and how all that links, and all the links that go out to places all over the world that we're working with. Also, the Command just awarded a $1.2 billion integrated communications support contract for upgrading all of the mission support equipment that will operate over the next 10 years. We're building a new system with state-of-the-art technology that has to be integrated into that, too, and the space operations center for U.S. Space Command and NORAD is the first piece of that to be integrated.

The CE: What is the significance of the redesignation and realignment of Buckley AFB, Col., as a Space Command base?

Col Tickel: As a little bit of history, Buckley was formerly an Air National Guard base and had been for quite a while. But the Air Guard wasn't manned, nor necessarily resourced or trained, to run the day-to-day base operating support mission there. The AFSPC mission at Buckley, plus other missions associated with it, continued to grow and were very hi-tech. As a consequence, standard base operating support, including civil engineering, services and communications, just couldn't keep up.

Then, when Lowry AFB and Fitzsimmons Army Hospital closed, it created a void in the Denver area. Many, like the Defense Accounting and Finance Center and the Air Reserve Personnel Center, remained on Lowry proper, and there were others in the Denver area. About four years ago, AFSPC was given the responsibility for supporting all active duty military in Denver. If somebody needs to get a base decal, etc., they go to Buckley.

The Secretary of the Air Force visited a couple years ago and said, "We need to do a better job of supporting our active duty personnel — Army, Navy, Air Force and Marines. We're going to make Buckley an Air Force Base." We did that 1 October 2000. On 1 October 2001, we will stand up an air base wing with all the assorted units under it. We don't know what the unit designations will be yet, but it will probably be the 351st Air Base Wing. It will have a civil engineering squadron under it, just like every other wing. We'll make it a full-up Air Force base to support all of the Denver area missions and people, along with those on Buckley.

The CE: What challenges do you face with missile field deactivation? We understand you've had success at Grand Forks AFB, N.D.

Col Tickel: Missile field deactivation is not new business. It was done at Whiteman and Ellsworth AFBs, and Grand Forks has just followed on. We have 150 missile silos and 15 missile alert facilities to go. Particularly with the missile silos, we have a START [Strategic Arms Reduction Treaty] agreement timeline we must meet. All of our 150 silos must be deactivated by implosion by December 2001.

When we say we do away with a missile warhead, we do away with the launch capability, too. So you destroy it, and then prove it's destroyed to your counterpart. When we blow up a silo, we leave it open for 90 days for treaty verification. That can be either on-site visual inspection by a Russian treaty group or oversight through satellite visual. After 90 days, we can clean it up, fill the hole, overseed it, and sell or give back the land. We are also dealing with any environmental concerns.

The CE: What types of issues arise when dealing with launch facilities at Cape Canaveral Air Station and Vandenberg AFB?

Col Tickel: Cape Canaveral and Vandenberg are two unique places in the Air Force. Not only do we launch military rockets with military satellites, but we also launch commercial rockets with commercial satellites.

As a consequence, we deal with commercial customers all the time. These are some of the nation's biggest defense firms, such as Boeing and Lockheed-Martin. We have to deal in a business-like fashion at those two places in the way we run things, even though we are a military organization.

We run the launch sites and we run the downrange tracking stations. Each coast has its own unique capability. Where you want to launch a satellite, how high it needs to be, and whether it goes over the polar region or whether it goes geosynchronous dictates what coast you launch from.

Several years ago the Air Force awarded two contracts, one to Boeing and one to Lockheed-Martin. We gave a half-billion dollars to each of them to build both a heavy launch capability and a medium-light launch capability at Vandenberg and Cape Canaveral.

We have licensed the area to them, and Boeing and Lockheed-Martin are constructing their own launch facilities, investing several billion dollars apiece. They will run and operate the launch sites . The first couple of launches, particularly for Cape Canaveral, should be in 2002. They will be

commercial launches. In 2003 or 2004, there should be some military satellite launches at Vandenberg.

The effort there is to reduce 25 to 50 percent of the overall launch cost to the federal government, particularly the Department of Defense. The way we have awarded some of the satellite launch contracts, we believe we will achieve that. It remains to be seen, but I think it is a pretty good idea.

Regarding facility maintenance, each of the bases is unique and each of the launch pads and associated facilities are unique to that particular system. Each takes quite a bit of different maintenance. At Cape Canaveral we have a base operating support contract that takes care not only of the launch operations, but also base operating support for the launch gantries and associated facilities for building up the rockets and satellites.

The CE: What are some of the environmental challenges facing AFSPC in the area of wildlife protection?

Col Tickel: Vandenberg, in particular, is one of the few pristine beach areas left in all of California. There are 38 miles of shoreline. As a consequence, the U.S. Fish and Wildlife agency looks to Vandenberg to protect certain species, because it's too late in other areas where there is development up and down the coastline.

The snowy plover, a threatened and endangered species, is on Vandenberg. What the Fish and Wildlife agency wants is for Vandenberg to maintain the habitat so these birds don't die off. They want us to close off the beach area to everyone, all 38 miles of it, during the mating season, which is March through November. The trouble is, not only are the beaches not fully open to the base, but they are also not fully open to the local community. Access to the beaches is important to our people and the local communities.

We are consulting with Fish and Wildlife now on a proper plan for the future. We totally agree that we want to protect endangered species, but we need to have some beach area open for our people and for the local population. There is a healthy debate, but it is a good debate and part of the environmental rules and laws we abide by.

The CE: There is also a National Marine Sanctuary proposal to expand control of waters adjacent to Vandenberg. How will that affect the mission there?

Col Tickel: There is an existing sanctuary area, and the Department of Defense has an exemption exclusion clause associated with the area's rules. We can launch for national military missions and it is not a problem. The situation is, they want to control what goes in the area, whether it's boats or airplanes, or in our case, rockets. Rocket launches spew debris. Some of the propellant may drop into the sea. Not much may fall, but some folks feel that any amount that falls into the sea is too much. They want, at least initially, not to have DoD exclusion. Would they limit us to one rocket launch a year? If so, that means Vandenberg would no longer be an acceptable location.

Vandenberg is the only place in the U.S. that launches polar satellites. Those are vital to communications, not just military, but civilian. If they give us a DoD exclusion for military satellites, but not for commercial satellites, that could create national economic problems. We are currently working with them on what kind of exclusion we should have.

The CE: As the Air Force moves along the fast track to privatize utilities, how is this playing out in Space Command?

Col Tickel: Utilities privatization in Space Command, just as in every other command, is creating some very awkward and unique challenges. We are evaluating whether this makes sense to do or not.

We have several "pathfinders" [An Air Force program that evaluates selected installations' privatization initiatives and applies lessons learned]. One is Peterson AFB. There, we are dealing sole source with the Colorado Springs Utilities. The reason it is sole source is because 90 percent of Peterson's land is leased from the City of Colorado Springs. Typically, utilities privatization turns over all the utility systems, the lines, and gives easements to the company or utility service. In this case they already have the "easements" so we didn't need to do that. Plus, they already own about 30 percent of the utility lines on base, because the lines run through the base to other places. It is kind of unique.

The other pathfinder is Cape Canaveral/Patrick AFB. There it's water, wastewater and electricity, whereas in Colorado Springs we are doing these and natural gas. Patrick/Cape Canaveral is kind of unique in that we are dealing sole source with Florida Power and Light. We have no bids yet. We don't know whether this will work. Initial indications are that it may. We will wait and see.

The CE: Space Command's A-76 program has been around long enough that it's time to recompete. How is that progressing? Is the program working for Space Command?

Col Tickel: We have our fair share of A-76'd organizations. We are doing some re-competing and we have done a fair number of those that went contract originally. Just about all of them ended up costing us more money. We have a few that were won as MEOs [most efficient organizations] and are just coming up for a re-compete at the five-year point. Have the requirements changed? Has the MEO changed? Has the performance work statement changed? We are working on how to do this.

We have five bases, Peterson, Malmstrom, Vandenberg, Patrick, and F.E. Warren, where we have UTCs. We have already A-76'd pieces of those, and have no more scheduled to go through the process. Just like every other base with UTCs, we have reached the limit of what we can do. We will not do any more unless the Air Force changes wartime civil engineer requirements.

Many of our sites are already contracted out and will stay that way, which is probably a good thing. If we didn't contract them out, we would have military doing lots of remotes. Any time we can reduce the number of remotes for our military folks, we will.

Editor's Note: Colonel Tickel culminates five years as the

A "Total Force" Base

The Air National Guard's first base began as Buckley Field, a World War II Army Air Forces auxiliary field, then spent several years under Navy command as Naval Air Station Denver. It returned to the Air Force in 1959 and grew into a thriving Air National Guard base where active duty personnel eventually outnumbered members of the Guard.

Buckley's latest transformation, to active duty Air Force base, culminated with a ceremony October 2nd that marked its transfer from the Colorado Air National Guard's 140th Wing to Air Force Space Command's 821st Space Group.

Civil engineering was involved in negotiations over the transition, the status of the base and how AFSPC would take over facilities planning.

According to Air National Guard Lt Col Tom Stanley, commander, 140th Civil Engineer Squadron, the base will operate as a typical active duty base where the Guard (Army and Air) is a tenant, except for airfield operations, which will remain under operational control of the Colorado Air National Guard.

"During this year of transition, both active duty and Guard civil engineering operations will be working together to address the needs of the base population," said Stanley.

(Above)* Buckley returned to the Air Force in 1959 as an Air National Guard base. *(Inset)* Buckley became the first base to display the new Air Force symbol. *(Historical photo courtesy Colorado Air National Guard)

"Tracking of manpower and materials for accounting of Guard resource expenditures is required due to the share of cost assumed by the State of Colorado under a Master Cooperative Agreement (MCA) between the National Guard and Colorado. Agreements for utility use and common support services are still being finalized as the final facility usage for the Guard and Air Force is worked out."

The National Guard will continue to operate and maintain the facilities associated with support of the Guard missions at Buckley AFB. — *editor (Historical data compiled from Air Force Space Command News Service releases)*

UNIT SPOTLIGHT

"Ready to Respond, Eager to Perform"

Unit Name: 90th Civil Engineer Squadron **Parent Unit:** 90th Space Wing **Location:** F. E. Warren Air Force Base, Wyo. **Commander:** Lt Col Carlos Cruz-Gonzalez **Assigned Personnel:** 188 military, 174 civilians, 100 contractors **Mission:** Support the Mighty Ninety by providing quality emergency services, facilities and infrastructure through teamwork.

Unique Requirements: F. E. Warren AFB, established in 1867, is the oldest operating Air Force base in the country. The base contains more than 214 historic buildings and nearly 150 prehistoric and historic archeological sites. Warren is listed on the National Register of Historic Places and is a National Historic Landmark. Although Warren is the oldest operating base, it hosts the world's most modern intercontinental ballistic missile force — 150 Minuteman III and 50 Peacekeeper missiles.

The base's landmark status presents special challenges for the 90th CES. Facility maintenance and repair activities must meet stringent special standards set by the Department of the Interior, the Advisory Council on Historic Preservation and the Wyoming State Historic Preservation Office. These special requirements drive the cost of operations approximately 20 percent higher compared to more modern installations.

Additional Accomplishments: Warren has one of the most progressive natural resource management programs of any military installation, including involvement with international endangered species recovery efforts. In the spring of 2000, a team of federal and state wildlife biologists captured over a dozen newly born fawns from the base's resident population of Pronghorn Antelope. The fawns were then flown to Mexico and used in captive breeding and rearing efforts for endangered Peninsular Pronghorn, found only in Mexico and one of the most endangered mammals in North America. These unique efforts with wildlife biologists from other nations to help recover endangered species are a positive reflection on the U.S. Air Force and a demonstration of a first class international partnering program.

The warriors of the 90th CES are also well prepared to support worldwide contingencies. In May 2000, Warren civil engineers led the team representing Air Force Space Command in Readiness Challenge VII. By the time the competition dust settled, the Mighty Ninety team had won four team categories and the Brig General William T. Meredith trophy for "Best in AF." It was the first Readiness Challenge win for AFSPC.

This year the 90th CES was recognized as having the best Readiness and Resources Flights in AFSPC. The squadron also played an important role in the selection of F.E. Warren as the command's 2000 Installation Excellence Award winner.

Military Airfield Revival

RED HORSE provides peacetime engineer support to Camp Snoopy

Crosser Boulevard was constructed to redirect vehicle search area traffic at Camp Snoopy, Qatar. RED HORSE units completed construction despite 120-degree temperatures. *(Photos courtesy 200th/201st RED HORSE)*

by 1st Lt Eric H. Mannion
201st RHF

When I was informed that my unit was to deploy to Camp Snoopy in Doha, Qatar, my first thought was … Where? Aside from hearing the name of the country a few times during the Gulf War, I knew little to nothing about it. In any event, this deployment seemed as though it might turn out to be one of our most challenging and productive training missions.

Vehicle maintenance activities were pivotal to the success of the mission. Here, MSgt Michael Bomberger, 201st RHF, provides verbal instructions as SSgts Daryl Walters and Gregory Findings, 200th RHS, perform repairs to a heat-stricken bulldozer.

RED HORSE at the Ready

In light of the relative threat in the Middle East, Camp Snoopy (located at Doha International Airport) has suffered from stresses related to the many deployments the location has seen since the Gulf War. Furthermore, the area's extreme climate was taking its toll. Enter the 200th RED HORSE Squadron and its sister unit, the 201st RED HORSE Flight.

We were tasked with bringing Camp Snoopy some desperately needed TLC and providing a securable location in accordance with standing force protection operations orders. As it turned out, this was no small undertaking. We were presented with more than 15 individual projects ranging from the construction of a Base Defense Operations Center to the installation and repair of an existing counter-mobility berm, defensive fighting positions, overwatch towers and roadways.

Typical Air National Guard RED HORSE training missions aren't quite like this one. The normal course of events involves the Air National Guard Readiness Center, ACC and subsequent tasking messages that link us to our annual training. This time the customer, the 820th Security Forces Group, came looking for us based on our reputation. From the beginning we were offered full ownership of the project. We were simply given the programming documents for the projects, a few customer

requirements, and a blank slate. The rest was up to us to make it happen.

Working the Plan

An initial project coordination meeting between the 200th/201st RHS, ANGRC, 820th SFG, and U. S. Central Command Air Forces (USCENTAF) staff was held in November 1999. Discussion topics at the meeting included typical deployment issues: who pays for the construction, per diem, billeting, security, airlift, etc. A basic timeline for the project was laid out and tentative deployment dates for five 17-day, 50-man deployments were scheduled for March through May of 2000. This left us with three months to put the whole show together. Needless to say, the logistics of moving approximately 250 personnel and related construction equipment from several different locations, in the relatively short amount of time available, posed quite a challenge.

200th/201st RHS personnel place a precast section of the vehicle search pit.

Design of the projects was initiated using pre-engineered buildings (PEBs) purchased in-country and erected by 200th/201st personnel. The design and research process was initiated and, after three to four weeks, the PEB concept was dropped due to unavoidable delays in procurement and contracting of the structures. This placed us in yet another challenging situation and reduced our timeline by another month.

The pressure was now on to come up with a sound engineering plan to meet the needs of the customers and the related force protection operations orders. We decided to approach the facility projects using modified K-Spans instead of PEBs. Initial design concepts were beginning to come together and the site survey for the project was nearing quickly. We then experienced a typical delay associated with deployments of this size: airlift.

The project timeline would have to be shifted to improve our chances of acquiring the airlift support we needed. Moving our equipment into the theater would require a C-5, and C-5s are always in demand. At first most of us felt we would have more than enough time to prepare, but then reality hit. Shifting the schedule would place us in Qatar in the May to August timeframe. The later deployments would occur during the hottest part of the year. This in itself was discouraging. We had an aggressive schedule to begin with and now we were adding the additional stress associated with working in extreme temperatures. Temperatures in Qatar during July and August can be as high as 135 degrees Fahrenheit. The RED HORSE adage “Work Hard, Play Hard” was starting to take on a whole new meaning.

MSgt Terry Smith, 201st RHF, instructs SrA Amanda Rosato, 200th RHS, on the proper construction stake-out of a horizontal curve.

On March 26 a site survey team deployed to Camp Snoopy to take a look at the project first-hand. The team consisted of key 200th and 201st personnel as well as representatives from the 820th SFG, USCENTAF civil engineering and contracting representatives. Overall project goals and priorities were addressed. Meetings with representatives from the U.S. Embassy were completed, material and equipment availability was researched, and project designs were finalized.

The site survey team gathered the applicable project site data and reviewed all of the projects with the USCENTAF civil engineering representative. We then

SrA Matthew Bennett, 201st RHF, completes installation of one of the most welcome features in the Base Defense Operations Center facility — air conditioning.

turned our attention to local building practices and materials commonly available in Qatar. Several key points arose. One, local structures are typically constructed from reinforced concrete or masonry products. Wood frame construction is almost non-existent.

Second, if you ask a local vendor if they have a certain building material available, 95 percent of the time they will tell you it is in stock. The vendor will then go to whoever carries the item locally, purchase it, and resell it to you.

Finally, the local economy is quite unique since almost all building materials are imported. Sizes, standards and specifications vary widely due to multiple countries of origin.

With many of the initial questions answered and the site survey data in hand, things started to look a bit better. Design of the facilities proceeded as well as could be expected considering Air National Guard members had only two days a month to accomplish all of the required work.

As is always the case, key traditional guardsmen volunteered extra time to help accomplish the task. Professional engineers and master tradesman alike offered their talents to produce an efficient design and make Camp Snoopy a better place to live.

Making It Happen

Before we knew it, the first deployment dates were on top of us and it was time for the Advon Team to depart. Aside from a few glitches related to reductions in the load plan for the aircraft, things went very well.

Over the next 11 weeks the 200th and 201st completed more than 16 projects, including: erecting a 15-foot-high berm surrounding the base camp, pouring more than 650 cubic yards of concrete, moving 10,000 cubic yards of dirt, erecting more than 50,000 pounds of steel and laying more than 780 tons of asphalt.

In the course of their work, engineers battled some of the toughest weather and working conditions this small Persian Gulf nation could dish out. Heat was the common theme throughout the deployment. Doors had to remain closed or temperatures would rise high enough to trigger fire suppression sprinklers. Pools had to be chilled before entering. Since temperatures rose well past 100 degrees during the day, engineers started their workday before 4 a.m., used personal water cooling systems and kept an eye on each other.

Digging through the Qatari terrain posed another challenge. The equipment operators likened it to digging through the surface of the moon. Other challenges included having to juggle construction projects, meshing an ever-rotating work force and adapting to strict host nation security requirements. It would be easy to say this alchemy would never jell. Yet the results spoke for themselves — all assigned tasks were completed.

Great Work, Great Relations

RED HORSE units assisted with construction at Camp Snoopy thanks to the United States' and Qatar's promising and expanding relationship.

"This has been an ideal deployment for a number of reasons," said Col Richard L. Brazeau, commander, 200th RHS. "The construction projects at Camp Snoopy gave us a chance to test our mettle at what we do best — building a base from the ground (or in this case, the rock) up. Culturally, we have had the somewhat rare opportunity, at least for military people, to experience Qatari culture," said Brazeau. "We have enjoyed it and look forward to returning in the future."

1st Lt Eric Mannion is an environmental engineer with the 201st RHF, Pennsylvania Air National Guard. Lt Col Christopher Cleaver, public affairs officer, Pennsylvania Air National Guard and SSgt Anthony J. Unum, administrative support technician, 200th RED HORSE Squadron, Ohio Air National Guard, contributed to this article.

Qatar is a small peninsula midway down the Persian Gulf, bordered by Saudi Arabia to the west and a short hop from Bahrain. Roughly the size of Connecticut, a half-million people call Qatar home. Qatar is also home to large oil reserves and has the third largest supply of liquid natural gas in the world.

While Air Force leadership is getting the word out that "No one comes close," CE's leaders are working to ensure their troops have the training and resources they need to maintain that standard at installations all over the world.

Air Force Civil Engineering's senior leaders assembled at Tyndall Air Force Base, Fla., for the 2000 CE Worldwide conference.

by Letha Cozart
editor

Senior leaders from across Air Force civil engineering gathered recently to inform and share concerns with one another on the status of CE activities and current and future happenings in the Air Force. The Civil Engineer Worldwide Conference, held Nov. 27 through Dec. 1 at Tyndall Air Force Base, Fla., was the forum for this annual information exchange on issues that affect the way CE does business.

Maj Gen Earnest O. Robbins II, The Civil Engineer, adopted the new Air Force theme line, "No one comes close," as this year's Worldwide conference theme.

"'No one comes close,' is very appropriate today," the general said during his opening remarks to conference attendees. "No one else in the world comes close in terms of air superiority and air power. The United States is, will be, and can be the very best in the world. On a smaller scale, our scale, 'No one comes close' applies to what we do and the people we represent. I don't think any other functional area touches so much of the Air Force, day in and day out, as we do. We know our mission and we do it well."

The five-day conference featured briefings on a wide range of Air Force civil engineering topics, including enlisted manning, retention and training issues; officer assignments; planning and programming; family housing and dormitories; military construction and environmental issues.

Lt Gen Michael E. Zettler, Deputy Chief of Staff for Installations and Logistics, briefed several IL objectives, including Aerospace Expeditionary Force support, where he stressed the need to promote teamwork at forward bases. The general also highlighted "What's to Come," including improving readiness and operational effectiveness, taking care of people, capitalizing on evolving technology, recapitalizing aircraft and infrastructure, and privatization.

Special presentations at the conference included The Developing Aerospace Leaders Program, which was briefed by Maj Gen Charles D. Link, USAF (Ret), special assistant to the

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A Balancing Act

The Air Force Enlisted Grades Allocation Program

by CMSgt Myrl Kibbe
HQ AFCESA, and
Mike Gelsleichter
Applied Research Associates, Inc.

In the military community as well as the business world, achieving *balance* is absolutely critical to accomplishing the mission. Using the right mix and proportion of manpower, materials and equipment increases production and almost always leads to a higher level of efficiency.

The CE community strives to maintain balance throughout its organizational structure while meeting its work objectives and, of course, while developing and sustaining a professional workforce. Balancing the size and structure of the CE enlisted workforce is no exception and has become, in recent years, one of our toughest challenges.

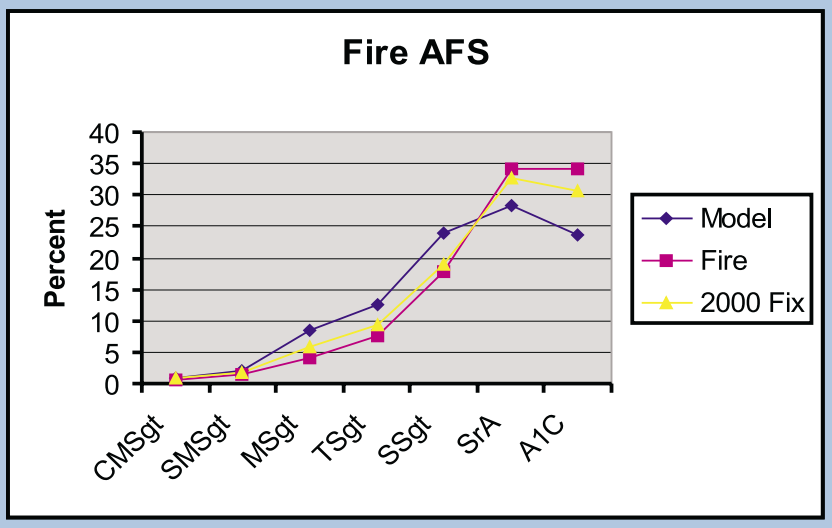
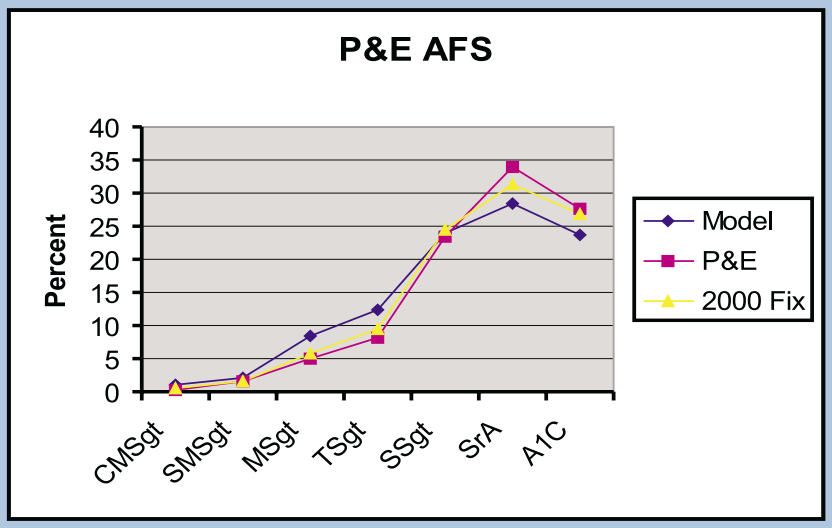


Figure 1. Fire and P&E AFSs versus the AF model. The current Fire AFS is more than 70% airmen, while the current P&E AFS is more than 64% airmen (a healthy AFS requires 52%). When too many airmen compete for too few mid-level positions, the result is forced retraining of quality airmen.



The Air Force Process

Responsibility for managing enlisted grades within a functional community ultimately lies in the hands of the community's leadership. To maintain process integrity, the Air Force traditionally conducts an enlisted grade review every two years, known as the Air Force Enlisted Grades Allocation Program. This is designed to ensure enlisted grades are equitably allocated to Headquarters U.S. Air Force, the major commands and field operating agencies, while ensuring the number of authorized enlisted grades put on the manpower books never exceeds the levels allowed by law.

Air Force Career Field Managers (AFCFM) are the focal point for this biennial program. AFCFMs have the responsibility and flexibility to make changes to a career field's enlisted structure. They are responsible for reviewing, and in some cases modifying, grade profiles to meet the specific needs of their respective communities.

Background

Throughout the years, there has been much speculation on how CE should structure its AFSs. During the 1980s, the enlisted grade structures of most CE AFSs worked well. By the early 1990s, however, force reductions and mission changes caused CE to streamline its enlisted organizational structure by merging 17 AFSs into 13. Throughout the remainder of the

1990s, newly developed AFSs such as Operations Management and Readiness survived through a steady influx of voluntary retrainees. AFSs such as Fire Protection and Pavements & Construction Equipment Operations (P&E) also prospered using an enlisted structure built predominantly on junior enlisted authorizations.

What was the common thread making all four of these enlisted AFS structures work? Simply, a robust retention program coupled with a not-so-healthy economy. Unfortunately, over the last few years the picture has changed.

The Problem

There are many factors that can, and often do, affect the stability of an enlisted career field. Declines in retention and recruitment, force retraining programs and grade shortages are all daunting problems that have had a significant impact on the health of much of CE's enlisted force.

On a grander scale, retention and recruitment declines are borne and dealt with at an Air Force level. Force retraining and grade shortages, however, are two problems that are more easily mitigated, and in some cases resolved, by an individual functional community.

Structuring a Career Field

With few exceptions, Air Force career fields are designed to ensure a smooth flow of personnel from the grade of airman basic to chief master sergeant. The number of individuals physically assigned to those AFSs can be influenced by factors such as: the total authorized for that AFS, retention and recruitment rates, High Year Tenure (HYT) requirements, and annual promotion percentages.

When a career field is designed using a *proportionate* mix of *all* enlisted grades, enlistment, retention and promotion rates all combine to produce a "healthy or model" AFS. Alternatively, when a career field is designed contrary to Air Force recommendations (i.e., a *disproportionate* number of grade authorizations or *omitted* enlisted grades), extraordinary measures are needed to sustain its health. These measures may include an "over reliance" on voluntary retrainees to sustain AFS growth, or a series of mandated retraining-out actions to reduce grade overages.

Sustaining a "non-AF model" AFS is relatively easy when manpower is plentiful. Maintaining that same AFS structure in the face of poor manning and low retention is far more difficult, and can hamper an AFS's ability to meet mission objectives and adversely affect the morale of its assigned troops. Currently, four CE AFSs — Operations Management, Readiness, Fire Protection, and P&E — fall squarely within this category.

The Fix

Today's retention and manpower shortfalls, resulting primarily from a booming economy, have caused the CE community to make unprecedented changes to the design and composition of some of its AFSs.

Within the last year, the Operations Management and Readiness career fields' survivability was at stake; low recruitment had severely restricted the flow of retrainees into the AFSs. We restructured these AFSs to accept non-prior service, junior enlisted grades versus relying solely on 5-level retrainees.

The Fire Protection and P&E career fields annually faced

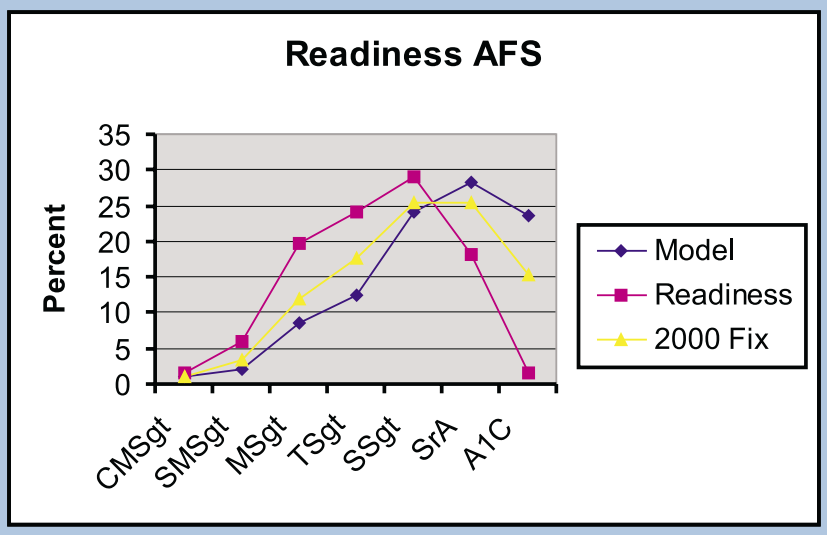
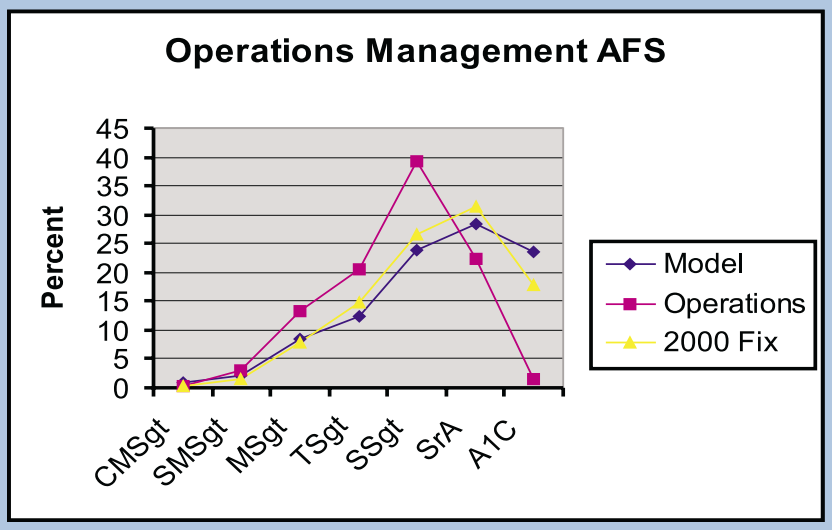


Figure 2. Readiness and Operations AFSs versus the AF model. With few airmen authorizations in the previous structure, retraining-in was the only growth source. The 2000 fix aligned this AFS to grow from the bottom up



force-retraining actions. We restructured these AFSs to increase the number of mid and senior enlisted positions while simultaneously reducing the number of junior grade requirements.

Paradigm Changes

Albeit painful, the successful restructuring of these AFSs will require a significant change in paradigms. AFSs that were exclusively staff sergeant and above are now structured using *all* enlisted grades. AFSs that were disproportionately junior enlisted will now contain more mid and senior enlisted grades.

Technical and master sergeants assigned to those AFSs with new junior enlisted grades (Operations Management and Readiness) will likely be assigned tasks once performed by master and senior master sergeants, respectively. Over the years, personnel filling these technical and master sergeant authorizations will actually be more skilled than their predecessors, simply because they were trained in that AFS from the beginning of their careers and not brought into the AFS as a result of a retraining action.

Technical and master sergeants in those AFSs experiencing junior grade reductions and mid/senior grade increases (P&E and Fire Protection) may now be required to perform tasks once required by staff and technical sergeants. Although levels of responsibility may drop for those individuals assigned to these AFSs, promotion opportunities should increase slightly while forced retraining actions diminish, and qualified and experienced personnel should not be forced to retrain to another career field.

So What's Next?

As with any change of this magnitude, patience and perseverance are critical. Although the overall structure and composition of some CE AFSs has changed, physically recruiting and filling these newly developed enlisted positions will take time. When these changes are fully implemented and long-standing paradigms toward grade requirements and leadership roles are altered, then positive outcomes will surely result. Over the next few years, we should see a "healthy or model" grade profile develop for all CE AFSs.

CMSgt Myrl Kibbe is the Air Force civil engineer career field manager, Headquarters Air Force Civil Engineer Support Agency, Tyndall AFB, Fla. Mike Gelsleichter is the former Air Force civil engineer career field manager. He now works for Applied Research Associates, Inc., Tyndall AFB, Fla.

CE Worldwide

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Chief of Staff of the Air Force for National Defense Review. The general said the DAL program is about ensuring the Air Force has the right types of training and experiences in place to develop future leaders. General Link emphasized the need for leaders to continue the transformation to a fully integrated air and space force.

Maj Gen John L. Barry, Director of Strategic Planning, Office of the Deputy Chief of Staff for Plans and Programs, continued the transformation theme with a discussion of strategic planning for the 21st century and details on the results of Vision Force — the vision that the Air Force is moving toward. He emphasized that this has been a busy year for airmen, with the release of *Joint Vision 2020*, *The Air Force Vision*, *The Aerospace Force* and *The Air Force Strategic Plan*, and preparations for the Quadrennial Defense Review.

Ms. Donna Rosa, project manager for Dyncorp, briefed the Next Generation Installation project sponsored by the Deputy Assistant Secretary of the Air Force for Installations. Ms. Rosa stated that the NGI will produce a forward-looking decision analysis and enabling tool that will assist Air Force planners by integrating pertinent information on existing infrastructure investment for installations, ranges and airspace. The study will produce a hard copy "Installations Fact Book" that consolidates major planning factors. The project will also result in an NGI web site that can function as a repository of information for all Air Force decision-makers during the installation planning process.

Brig Gen L. Dean Fox, The Civil Engineer, Air Mobility Command, and Brig Gen David M. Cannan, The Civil Engineer, Air Force Materiel Command, briefed attendees on lessons learned from the MacDill and Kirtland Air Force Base CE conversions.

AMC began converting MacDill's 6th Civil Engineer Squadron to a contractor operation in November 1999. General Fox's discussion of lessons learned from MacDill included the following: "programmed savings" should not be assumed; projections for long-term "savings" were overly optimistic; a lack of flexibility exists in adjusting to changing priorities without increasing contract costs; and base maintenance contracts are a "must-fund" at the expense of CE operations.

Kirtland's A-76 study began in Dec. 1998, with the contract awarded in July 2000. General Cannon noted the following lessons learned: operating cost should be established prior to the start of the A-76 study; command standards must be understood by the base; finalization of the performance work statement shouldn't be allowed during negotiations; how savings will be computed should be clearly communicated; a floor for an acceptable bid offer should be established; direct conversion is not as streamlined and quick as it seems; and direct conversions do not achieve comparable savings to the competitive process.

Contingency training, in particular the Silver Flag Exercise Site curriculum, was briefed by Col Bruce R. Barthold, commander, Air Force Civil Engineer Support Agency. Colonel Barthold said that in the future Silver Flag training will have increased emphasis on command and control and beddown tasks and decreased emphasis on BRAAT (Base Recovery After Attack). AFCESA was host to this year's conference.

Topnotch Training

RED HORSE and Prime BEEF Improve Facilities at Fort Leonard Wood

Fort Leonard Wood, Mo., is the home of Air Education and Training Command's Pavement Maintenance & Construction Equipment Operator Apprentice Course. The Pavements and Equipment course introduces airmen to the Civil Engineer organization and allows them the chance to become a member of an elite group of Air Force personnel.

by TSgt Steven E. Sandy
366th TRS/Det 7 Public Affairs

Pavements and Equipment (P&E) personnel are people you see every day on every Air Force base. They operate the dump trucks, backhoes, bulldozers, loaders, snow removal equipment and sweepers. They're the ones who pour concrete to fix sidewalks and curbs. They're the men and women who replace asphalt to keep the flight line operational and base streets open. These members, who play a vital role in the mission to keep aircraft taking off and landing safely, initially learn their skill at the training school at Fort Leonard Wood, Mo.

During the summer of 2000, RED HORSE and Prime BEEF teams deployed to Fort Leonard Wood to construct needed facilities for the technical training course. The facilities the P&E course occupied barely provided enough space for the cadre and students during classroom portions of their training and were not conducive to a professional training environment. Training scenarios conducted outdoors were hampered by inclement weather conditions, adversely affecting hands-on training. To correct these deficiencies, the Air Force committed $1.5 million dollars for the construction of new facilities and outdoor inclement weather training sites on this Army installation.

The 820th RED HORSE Squadron from Nellis AFB, Nev., arrived in May 2000 and promptly began construction of a new four-classroom facility, complete with break room and storage area. The classroom project also included an electrical upgrade for future expansion. July 2000 brought the arrival of a 10-member AETC Prime BEEF team comprised of craftsmen from Altus, Randolph, Scott, Keesler and Kelly Air Force bases. These team members constructed an enclosed observation tower, a sunshade pavilion, and a climate-controlled, ground-level observation facility. The team successfully completed all work within a 40-day time constraint.

A ribbon cutting ceremony celebrated completion of the facilities and set the example of "Excellence In All We Do." Maj Gen William Welser III, AETC director of operations, presided over the ceremony, accompanied by then Fort Leonard Wood commanding general, Lt Gen Robert B. Flowers. Although this "first phase" of construction is complete, much more will be done to bring this area up to the training standards desired by Air Force personnel. Equipment parking areas, two K-Span buildings, personal vehicle parking and various other projects will be constructed before the project is complete. Both the 819th RHS and 823rd RHS are committed to deploy to Fort Leonard Wood this year to construct the K-Spans. A majority of the remaining work will be finished as self-help projects by the P&E instructors as class rotations permit.

This is a great example of the commitment of Air Force civil engineer leadership to bring together the resources to make the improvements a reality. The Air Force is known for having "outstanding" facilities and this is no exception. If you haven't yet been to Fort Leonard Wood and seen the P&E training areas and facilities, Detachment 7 invites you to visit. The Air Force is making great progress in improving the training environment for future engineers!

(Top)* Construction of an observation tower for monitoring heavy equipment training. *(Above)* The new classroom facility under construction by the 820th RHS. *(Photos by MSgt Ken Willard)

Views from the Field

Commentary on Issues Affecting Air Force Civil Engineering

Confined Space Awareness

by SMSgt Fred Spielmann
202nd RHS

It was during a field exercise in 1989 that I received a phone call with a very disturbing message. A past employee and long time friend had died in a confined space accident. With all his years of experience, how could this happen? He was doing a routine task. He'd done it hundreds of times — and so had I.

After working as a site development contractor in the Central Florida area for 11 years, I finally decided to throw in the towel. I had 35 employees, over a million dollars worth of equipment with $40,000 a month in payments, a partner that started fires I constantly had to extinguish, and the fear of losing everything I had worked for whenever I left to attend annual training with my Guard unit. Over that 11-year period I worked five and six 12 to 14-hour days a week and had taken my family on three, four-day, weekend vacations. I'd had enough!

I found employment with a local utility contractor as an estimator and could finally work five days a week, 10 hours a day and have weekends to myself. I could even leave for two weeks of annual training and not worry about going broke. Some of my long-time employees came with me, including the man who later perished in the accident.

We had just completed construction of a 12-foot diameter, 30-foot deep, master sanitary pump station. No collector lines had been installed, and two men were sent to complete a few punch list items. While the laborer was inside the structure on a ladder installing a small flapper valve on the valve vault drain line, the foreman was touching up the exterior piping with paint. The foreman heard a noise in the wet well and immediately investigated. When he approached the hatch he saw the laborer lying in the bottom of the structure in three feet of water. He immediately called in the emergency on the two-way radio and proceeded down the ladder.

A mechanic working on a machine nearby rushed to the site. When he arrived he found both men lying in the bottom of the structure. By this time an emergency response team was en route, so the mechanic started down the ladder to attempt to rescue the two men. As he approached the bottom of the well, he began to feel dizzy. He believed the foreman was still alive, but feared for his own life. Ascending back up the ladder, he could hear the emergency response team arriving.

The mechanic explained the situation, to the best of his knowledge, to the response team, but they were unfamiliar with the lift station and refused to enter until their supervisor was present to assess the situation. If either man was alive when the team arrived, they were dead by the time the rescue was attempted. The initial cause of death was listed as drowning.

An investigation ensued, but no other reason for their death was disclosed. OSHA also investigated the accident and cited the company for not complying with confined space entry procedures. But how could two healthy men performing a routine task end up dead?

It wasn't until I began my confined space entry and rescue training that I understood what killed these men. They died for the same reason there are corpses on Mt. Everest. Lack of oxygen! It was not what was in the wet well that killed these men or made the rescuer dizzy; it was the absence of oxygen. They may have drowned in three foot of water, but they passed out first. A tripod with safety harness, proper ventilation, an air quality monitoring instrument, or a breathing apparatus — any of these would have prevented this tragedy.

Confined space procedures should be followed whenever entering a confined space regardless of whether it is a new structure or an existing structure. If it has a hatch, lid or only one way in and out it is considered a confined space. The equipment and training required is expensive, but necessary. If, at present, you can't afford the equipment and training, at least indoctrinate your people on confined space awareness. Ensure that your people understand what is considered a confined space and ensure that an emergency response team trained in confined space rescue is on standby any time a confined space is entered.

Weigh the risk factor. You may have to live with the outcome.

SMSgt Fred Spielmann is the pavements/construction equipment superintendent for the 202nd RED HORSE Squadron, Florida Air National Guard.

Editor's Note: The Air Force Civil Engineer Support Agency fielded the first two CDs in a four-part series of training products this summer to provide standardized familiarization and training programs for confined space entry and rescue. For more information, contact CMSgt Carl Glover at DSN 523-6112 or commercial (850) 283-6112, or send e-mail to Carl.Glover@Tyndall.af.mil.

Bogged Down

Peat Bog Fire Tests the Patience of Vandenberg Firefighters

by TSgt Michael A. Ward
AFCESA Public Affairs

It's been said California has four seasons — flood, drought, earthquake and fire. You'll get no argument on the last one as California experienced one of its worst wildfire seasons last year. Thousands of firefighters from across the nation responded to numerous fires throughout the state.

One of the most unusual fires occurred near Vandenberg Air Force Base in mid-September. More than 1,000 military and civilian firefighters were called out to fight the Harris Fire, named for the nearby Harris Grade Road. That fire, swept by high winds, consumed about 9,700 acres before firefighters could contain it three days later … or so they thought.

As the fire burned its way across the area's hills and valleys those three days, it made its way down to the Barka Slough wetlands, an area thick with naturally occurring peat. Peat is one of nature's fuels. It's made up of decaying vegetation that has begun to carbonize. Left alone for a few thousand years it can become coal.

As firefighters contained the last remnants of the Harris Fire, they soon discovered that the pesky little fire down in the wetlands wasn't going out.

"We had a small contingent assigned to the bog because we weren't sure exactly what was burning and where it was going," said Mark Farias, Vandenberg fire chief. "They were putting a lot of hard work and blood, sweat and tears into putting out the bog while the rest of us were fighting a fire 10 times as big. Our fire was going out quicker than theirs and we realized then we had something special on our hands."

What they had was a fire that had gone underground, able to feed off a huge peat reservoir built up over thousands of years. What they didn't have was a way to put it out. They soon discovered traditional firefighting methods were ineffective not only because the fire was below the surface, but because of the surface. The slough is covered in layers of watertight clay, three to five feet deep. To make matters worse, heat from the fires baked the clay and turned it into a hardened cap over much of the area.

"The fire became kind of like a nasty ingrown toenail. It went from being a mild irritant, to being very, very annoying," Farias said.

Fire crews tried saturating the ground, hoping some of the water would reach the fire through fissures in the clay. They

Spectators watch from behind a schoolyard fence as a major wildfire on Vandenberg AFB, Calif., burns in the distance. *(Photo by TSgt Scott Wagers)*

Concern shows on the faces of base and community emergency responders as they discuss ways to contain the fire. ***(Photo by SSgt Janice H. Cannon)***

brought in water cannons that could shoot 2,000 gallons a minute and hired a contractor to lay industrial sprinkler pipes with 150-gallon per minute sprinkler heads. Their efforts helped reduce the amount of smoke coming from the bog, but did little to extinguish the fire.

"You need three things for a fire to exist — fuel, heat and oxygen — and this one's got all three," Farias said. "We need to remove something and with the rainy season coming we hope to reduce the heat and oxygen level underneath the soil enough to put the fire out. Mother Nature can usually do things that we can't."

Actually Mother Nature is part of the problem. The Barka Slough is home to some environmentally protected species, and base and government officials are concerned about any solution that may further damage the environment.

"We want to do the right thing environmentally," Farias said. "We could have put the thing out the very first day

An exhausted firefighter takes a break. ***(Photo by SSgt Janice H. Cannon)***

A walk with the dog turns into a sightseeing opportunity as the fire makes its way across the hills and valleys that make up the Vandenberg area. *(Photo by SSgt Janice H. Cannon)*

if we had bulldozed it and drowned it. But I think we'd still be paying for that long afterwards." However, he concedes that if the fire is still burning after the rainy season base officials may have no choice but to use "more intrusive measures" which could include ripping open the cap with a bulldozer or drilling holes in it and flooding the fire. Base officials have already contacted the Department of Energy about conducting aerial mapping using deep-thermal imaging equipment to find hot spots.

In the meantime, smoke emanating from the slough is a constant reminder to base firefighters that there's still work to be done; only it may require some patience.

"We wanted to put this thing to bed, make it part of history and chalk it up as a success story," Farias said. "The frustration here is that it's 2001 and we're still messing around with this thing. We're a lot closer to reaching the finish line with it, but it has cost no small amount of money, resources and time and effort."

The underground fire at the Barka Slough has burned about 85 acres of the more than 600-acre wetland area. Like coal, peat produces a dirty, irritating smoke. That has raised environmental concerns for emergency responders, as well as the base and community. While air quality has been affected by the smoke, Vandenberg bioenvironmental officials announced Jan. 10 that personal air sample tests conducted throughout October on people working in the area of the slough record no signs of harmful levels of contaminants.

In addition to the firefighters, members of Vandenberg's 30th Civil Engineer Squadron Operations Flight are involved with containing the Barka Slough Fire and members of the squadron's Environmental Management Flight are monitoring the environmental integrity of the area.

Firefighting efforts included using bulldozers to create fire breaks. *(Photo by SSgt Janice H. Cannon)*

A Playground for Peace

by MSgt Bob Haskell
National Guard Bureau Public Affairs

A tall, spindly Macedonian lad named Ristof is a Los Angeles Lakers basketball fan. His white jersey with the distinctive yellow and purple logo makes that very clear. A stocky Marine Corps Reserve major named John Church is a life-long Detroit Tigers baseball fan — as in *fanatic*. If you don't believe it, ask him.

Thanks to Church and a host of other American military people, and the family that owns the Tigers, Ristof and his friends began playing basketball on a new, smooth concrete court in the Republic of Macedonia this summer.

The court, complete with new white backboards and orange hoops, is in Negotino, a southern Macedonia community. It takes up one half of an acre-size playground that Air National Guard civil engineers, Marine Reserve combat engineers, Navy Seabees and Macedonian soldiers and civilian contractors built and equipped with about $25,000 in privately donated American funds.

Church, the ranking Marine on the joint military staff, obtained $20,000 of that from Michael and Marian Ilitch, owners of the Tigers. The Ilitch family, he knew, came from Macedonia. Mike Ilitch is a former Marine.

"This was a shot in the dark. It has restored my faith in humanity," Church told *The Washington Post* after getting an unexpectedly generous response to a letter asking for help that he wrote to Mike Ilitch a few weeks earlier.

They took on the playground project in a field choked with weeds

Vermont Air National Guard TSgt Patrick O'Brien (left) helps a Macedonian man assemble a swing set on the playground that civil engineers from Vermont's 158th Fighter Wing helped build for children in Negotino. *(Photos by MSgt Bob Haskell)*

TSgt Patrick O'Brien (left) and Marine Corps Reserve Sgt Christopher Labonne flank a Macedonian boy named Ristof on the playground they helped build for children in Negotino, a small town in southern Macedonia.

and surrounded by a rundown chain-link fence beside a Negotino apartment house as a special gift to the people of Macedonia, explained Vermont Air Guard MSgt Dwight Harrington.

"This is not a Cornerstone project, but we may build better relations with this playground than with anything else we do over here. And that's why we're really here," said Idaho Air Guard Col Clayton Anderson, who commanded the American troops taking part in Operation Cornerstone 2000-3.

Local contractors poured the concrete court and walkways, hauled in crushed rock and erected a new fence around the rejuvenated play area. The Vermont Guard people purchased a new slide, a swing set, six park benches and spring-mounted rides for the town's children to play on.

It wasn't long before Ristof and his friends could begin showing their stuff on the new basketball court.

"This is better. It is very good," praised Ristof in respectable English. "More kids, more friends, will come here to play basketball. We are very happy."

Vermont Air National Guard and Macedonia: Partners in Peace

The Vermont Air National Guard led the Cornerstone 2000-3 deployment, part of a five-year-old effort to stabilize the Balkans, because of the Green Mountain State's National Guard State Partnership relationship with Macedonia.

Specifically, the 158th Fighter Wing's civil engineer squadron was the lead agency for a joint task force that spent May and June renovating two clinics, a community center and two schools in the neighboring towns of Pepeliste and Krivolak on the banks of the Vardar River.

National Guard people have been directing New Horizons humanitarian missions in Latin America for many years. Leading this Cornerstone operation in Europe was another step in the Guard's Total Force integration.

More than 200 Air National Guard civil engineers from Vermont, Indiana and Oregon, 100 Marine Reserve combat engineers from Baltimore, Md., and from Lynchburg and Roanoke, Va., and 50 active duty and reserve Navy Seabees out of Rota, Spain, and Fort Belvoir, Va., participated in the effort.

They were commanded by Idaho Air Guard Col Clayton Anderson, an Army veteran of Vietnam who has been a civil engineer for 25 years. The American force, split into four rotations, served for the two months with 100 or so Macedonian soldiers and civilian workers led by Col Trajce Jakimoski.

"The number one mission is good will. Number two is the building," maintained Anderson. "If we didn't want to build good relationships, we could have sent the money and had this work done. As engineers, we can leave behind a byproduct of our efforts. This is a way to take a positive step for peace.

"Besides," he added, "these joint task forces are the way our forces will deploy in the future. Members of our different services have to learn how to communicate with each other and to understand that the Finns, the Bosnians, and the Macedonians do things differently from the way we work in the United States. We have to be able to understand the different customs and cultures of the places where we may go." *(MSgt Bob Haskell, NGB/PA)*

Vermont Air National Guard SSgt Clem Devlin, guided by Marine Corps Reservists, maneuvers a bucket-load of sandy fill over a 15,000-gallon fuel tank beside a medical clinic and community center they helped rebuild in Krivolak, Republic of Macedonia. *(Photo by MSgt Bob Haskell)*

CE WORLD

Guard, Reserve Build Up OSI

Call in the Reserves!… not just for war, but also for renovations.

That's just what two Air Force Office of Special Investigations units did to improve their working areas at a fraction of the conventional cost.

"It's really a 'win-win' situation," said Col David Bearden, OSI's director of reserve affairs. "The OSI gets a couple of facilities that we otherwise couldn't have afforded, and the Guardsmen and Reservists fulfill their annual training requirements in their wartime skills."

SrA Andre S. Murray (left) and MSgt George W. Anderson (right), both from the 459th CES Electrical/Power Pro Shop, Andrews AFB, perform building renovations for another Andrews tenant, Headquarters Air Force Office of Special Investigations. *(Photo courtesy 459th CES)*

The two OSI units on the receiving end of the renovations are Det. 401 at Randolph Air Force Base, Texas, and the 33rd Field Investigative Squadron at Andrews AFB, Md.

Together, funding the projects through the normal budget process would have cost between $600,000 and $700,000, Bearden said. Instead, the cost to OSI will total a mere $75,000.

Why the savings? It comes down to the cost of labor.

"The vast majority of cost for a typical construction project is the cost of labor," said Maj Larry Merkl, manager of the two projects. "But if you use Guard or Reserve labor, then the labor is essentially free, and you only have to pay for materials."

Merkl is a member of the Maryland Air National Guard's 235th Civil Engineer Squadron, which is overseeing the work at Andrews with support from locally based 459th CES Reservists. The work at Randolph is being completed by the 433rd CES out of Kelly AFB, Texas.

At Det. 401, the work entails consolidating OSI work environments from three separate locations to one. Doing so requires a significant overhaul of the building into which all detachment members will eventually move. The work includes demolition of old walls, construction of new ones, upgrading the electrical and telephone systems, upgrading the computer network infrastructure, laying new carpet, building new polygraph suites and observation rooms, upgrading the evidence facility, and wiring the conference room for audio and video briefings.

The 33rd FIS found itself needing more space due to a sizable squadron personnel plus-up, from 37 members to 89. To help with the overflow, the civil engineers are renovating an old warehouse.

To make the building suitable, it will get a new roof, paint, ceiling tiles and carpet, plus new walls to accommodate three polygraphs suites, an observation booth, two offices and a storage room. Another much-needed addition will be a new heating, ventilation and air conditioning system, complete with all new ductwork.

Renovations are expected to be complete by the end of January. When both projects are done, Merkl expects job satisfaction to swell in the hearts of those who've done the work.

"We get our training," Merkl said, "but at the same time we get to give something back to the Air Force. It makes the troops happy." *(Maj Mike Richmond, AFOSI Public Affairs)*

'Loan' Paves Way for Base Engineers

Construction crews with the 5th Civil Engineer Squadron, Minot Air Force Base, N.D., are improving Minot's streets while saving the base thousands of dollars courtesy of a new paving machine purchased through an Air Force rapid "loan" program.

The self-propelled paver allows Minot's engineers to make immediate repairs to base streets without having to wait for funds to hire contractors for these smaller jobs, said CMSgt Kevin Mortenson, 5th CES horizontal construction shop superintendent.

"In the past, it could take several

months to process a work order, obtain the necessary funding and hire a contractor before we could make even the simplest road repairs on base," the chief said. "With the road paver, we can go out and make the repairs in a couple of days depending on the complexity of the job."

The repair shop turned to the Air Force's Fast Payback Capital Investment Program for the $111,500 needed to buy the machine. In return, the shop repays the "loan" through savings it earns from making the repairs.

According to the chief, the squadron expects to save the base thousands of dollars each year since it only needs to pay for the asphalt it uses for each road repair.

Since they started using the machines in September, engineers have used more than 4,000 tons of asphalt to pave new access roads to the base's sewage lagoon roads and lift stations. They also reconstructed a parking lot.

The base has lacked this type of equipment for years, and it is a welcome addition to the squadron's construction fleet, said Loren Christianson, 5th CES horizontal construction shop.

"[Using the equipment] is great experience we can't get at many Air Force bases," added co-worker A1C Nathan Routhier. *(TSgt Brian Orban, 5th Bomb Wing Public Affairs)*

Editor's Note: More information on the Fast Payback Capital Investment (FASCAP) Program and the Productivity Investment Fund (PIF) program is available in chapters 3 and 4, respectively, of Air Force Instruction 38-301, which can be viewed on the Air Force Publishing web site: http://afpubs.hq.af.mil/pubfiles/af/38/afi38-301/afi38-301.pdf

Electric Shop Modernizes, Saves Money

In the never-ceasing effort to modernize infrastructure on the military's aging bases, civil engineers at Holloman Air Force Base, N.M., are meeting the challenge head-on.

The 49th Civil Engineer Squadron's exterior electric shop is modernizing base infrastructure, and saving money, by replacing outdated utility pole cross arms.

"The old T-arms are not as stable as the technology we have today," said Phillip Trujillo, shop chief. "We are currently replacing them with a polymer-type conducer that is more stable and more efficient."

This type of project requires shop members to don climbing spikes and climb each pole in the line that is being replaced. The shop has already replaced cross arms on nearly six miles of poles.

"These guys are working very hard. I'm really impressed at the speed they're accomplishing this task," said Trujillo. According to the shop chief, the project could have been contracted, but they decided to tackle it themselves, saving the Air Force more than $40,000.

"Probably the best part about the whole thing is the money we're saving the Air Force," he explained. "But another great benefit is the training the guys are getting out of this. When we have an emergency situation and we can't use the bucket trucks, the only way to fix the poles is to climb them. If they don't have the training before we get into that sort of a situation, it's the wrong time to learn."

"This is a good chance for us to fine tune our climbing abilities and learn how to work in this type of situation," said A1C Shawn Bisbing.

In the last few years, the shop has saved the Air Force "thousands of dollars," by completing tasks often contracted out at other bases.

"A lot of the utility poles and the transformers on base are real old," said Trujillo. "Next year we'll be hitting the housing areas and completing this same process." *(A1C Chris Uhles, 49th Fighter Wing Public Affairs)*

Members of the 49th Civil Engineer Squadron's Exterior Electric Shop replace outdated utility-pole cross arms at Holloman Air Force Base, N.M. ***(Photo by A1C Chris Uhles)***

Joint Team Digs Buffalo Out

(Above, below) **Soldiers, airmen and sailors from the New York National Guard deployed a variety of heavy engineer assets to assist Department of Transportation crews in snow removal efforts in the city of Buffalo. In just 48 hours of continuous operations, the National Guard helped the city reopen in time for the Thanksgiving holiday.** ***(Photo by Maj Richard Goldenberg)***

The 107th Civil Engineer Squadron, Niagara Falls, N.Y., joined Army National Guard engineers and Naval Militia SeaBees in helping the city of Buffalo dig out from the third worst one-day snowfall in city history.

On Monday, November 20, just days before the Thanksgiving holiday, Buffalo was inundated by a rare early-season storm. In a 24-hour period, more than 25 inches of snow fell, paralyzing the city and much of western New York State.

By Tuesday morning the storm's damage was visible throughout western New York. Local and national media showed viewers across the country images of abandoned vehicles in downtown Buffalo. Schoolchildren who could not reach their homes took shelter in local businesses or community centers. Reopening the city of Buffalo would require all the assets the state could muster. Fortunately, the New York National Guard had both the assets and the experience in emergency response.

Soldiers, airmen and sailors deployed a variety of heavy engineer assets to assist Department of Transportation snow removal efforts. In just 48 hours of continuous operations, the National Guard helped the city reopen in time for the Thanksgiving holiday.

"Our emergency response force in Buffalo was truly a joint team. The Air Guard's 107th Civil Engineers have extensive experience working with us during snow emergencies and adapt to the Army's staff and operations quickly," said Army National Guard Col Jeffrey Yeaw. "We really could not accomplish the mission without the Air Guard or Naval Militia airmen and sailors who work side by side with our Army Engineers. In state emergencies, we're all one team." *(Maj Richard Goldenberg, NY ARNG)*

AFCAP Recruits Power Pros

The Air Force Contract Augmentation Program (AFCAP) will replace 35 Aerospace Expeditionary Force (AEF) power production positions at four bases in the Kingdom of Saudi Arabia, Kuwait and the United Arab Emirates for one year. This new initiative was designed to directly reduce the power production career field operations tempo. The AFCAP task order fills AEF rotational taskers from Dec. 3, 2000 to Dec. 2, 2001. This support will reduce the AEF power production 90-day rotational taskings requirement by 140 military personnel.

AFCAP is a cost-plus award fee contract designed to provide on-call capability in the complete range of contingency civil engineer and services support, except crash/fire rescue, explosive ordnance disposal, mortuary affairs and field exchanges. The current AFCAP contractor is Readiness Management Support (RMS) L.C., a subsidiary of Johnson Controls.

The program has seen considerable activity during the past year, with task orders in temporary construction, renovation and disaster response. The AFCAP contractor completed renovations to an existing open bay fire station in Aruba, corrected airfield safety deficiencies in Ecuador, and is currently installing four temporary facilities and a BAK-12 aircraft arresting barrier and providing base operations support at Hato International Airport, Curaçao.

AFCAP was also used to procure and deliver emergency disaster relief supplies for the U.S. State Department's Office of Foreign Disaster Assistance, including emergency supplies during recent flooding in India.

Academy Fire Department Recommended for Accreditation

The U.S. Air Force Academy fire department has been recommended for accreditation by the Commission on Fire Accreditation International (CFAI).

The accreditation process was initiated in October 1998. It involved providing answers and exhibits to 233 competencies, ranging from risk assessment to staffing and equipment. CFAI inspection teams visited the Academy to inspect those 233 competencies in June and October. The commission will certify them as an accredited fire agency in March 2001.

CFAI is an independent, non-profit entity created in 1996 to provide a comprehensive system of fire and emergency service evaluation to help determine risks and fire safety needs, evaluate the performance of the organization involved, and provide a method for continuous improvement.

The CFAI process is similar to hospital and childcare center accreditation, and fire service agencies throughout the world are considering this process to evaluate their programs. To date, only 36 agencies have been accredited worldwide. The USAFA fire department is the first in the Air Force to be recommended for accreditation. Two Navy fire departments, Naval Air Station Jacksonville and Keflavik, have been accredited. *(The Fire Fighter Gazette, Nov. 2000)*

Meeting the Challenge

The 99th Civil Engineer Squadron explosive ordnance disposal team at Nellis Air Force Base, Nev., recently lived up to their motto of "Anytime, Anywhere!"

On October 2 at 11:15 p.m. the Nellis Command Post notified the EOD standby team, SSgt Jessie White and SrA Leo Livas, that an A-10 had jettisoned two live MK84 2,000-pound bombs north of the base due to an in-flight emergency.

At 7:30 the next morning, TSgt James Walter and Airman Livas were transported by helicopter to the impact site — a rugged hillside at 6,000-plus feet in elevation — by the 66th Rescue Squadron.

One MK84 bomb detonated on impact and the other broke up on impact. About a third of the high-explosive filler remained from the broken bomb, and the base plate from the bomb that detonated was recovered. Sergeant Walter and Airman Livas successfully disposed of all explosive hazards.

The following day SSgt Amanda Homer and Airman Livas returned to the site and verified the area to be free from all explosive hazards. Mission complete. Team Nellis again met the challenge! *(CMSgt Doug Clark, 99th CES)*

99th CES explosive ordnance disposal team members responded when an A-10 jettisoned two MK84 2,000-pound bombs onto a rugged hillside north of the base due to an in-flight emergency. *(Photos courtesy 99th CES)*

‘The Challenge of Change’

Civil engineer financial managers meet in Colorado Springs

by Maj Martin Granum
HQ USAF

“On behalf of The Air Force Civil Engineer, Maj Gen Earnest O. Robbins II, I welcome you.” That was the greeting Ms. Rita J. Maldonado used to welcome more than 200 attendees from across the Air Force to the 2000 Air Force Civil Engineer Financial Managers’ Conference, held August 22-25 in Colorado Springs, Colo.

Ms. Maldonado, Chief, Operation and Maintenance Division, Office of the Civil Engineer, was the conference host. “This dynamic and informative conference is the premier learning and networking opportunity for all of us in the civil engineer financial management community,” Ms. Maldonado said.

The conference focused on the needs of installation financial managers, with briefings and classes designed to prepare them to meet “The Challenge of Change,” the theme of the conference.

Twenty separate topics were addressed in the three and a half day conference, beginning with a videotape address from Lt Gen Michael E. Zettler, Deputy Chief of Staff for Installations & Logistics, who began by commending those present on a job well done. “Collectively you handle over 5 billion dollars annually, and you do so with the utmost integrity and professionalism. The Air Force and the American people have placed in your care a staggering level of resources, and you have responded with an unblemished record of accountability and solid decision making.”

General Zettler also spoke to future levels of Real Property Maintenance (RPM) funding. “As you know our Real Property Maintenance accounts have been stretched to the breaking point for several years now. I wish I could tell you that a fix was at hand, but the reality is we’re facing still more lean years as the Air Force corporately addresses many vital concerns, such as people, modernization, recruiting and retention, to name just a few.” His outlook was that improvement in RPM funding would ultimately come in incremental increases as the Air Force gradually returns to an adequate level of infrastructure investment.

The challenge of change theme prevailed throughout the conference, with briefings on many of the changes in the financial management business, but none generated more interest than the presentations on the new Facility Sustainment Model (FSM).

According to Maj Lowell A. Nelson, the Air Staff program analyst working on FSM implementation, “The conference was the perfect opportunity to introduce the Facility Sustainment Model, DoD’s new real property maintenance requirements model, to funds managers Air Force-wide. The implementation of FSM in programming, budgeting and execution processes will be greatly improved by the questions and insights the conference attendees brought out.”

The conference afforded a rare opportunity for financial managers to gather. According to Ms. Cherry L. Wilcoxon-Hurt, AFIT Course Director for Resources and Financial Management, “most base-level civil engineer financial management personnel are not afforded an opportunity to interact or network with Air Staff, major command, and other support agencies or attend CE financial management-specific training. The conference successfully accomplished those feats and many more. It was a great venue for the exchange of information and ideas.”

MSgt Kristy Wegrzyniak, 819th RED HORSE Squadron Resource Advisor, echoed those thoughts, “I appreciated being able to put a face with the many people I have talked with and worked with over the phone, but had never met. The conference helped me to look at my job from a broader perspective. The cross feed of information and the sharing of problems and ways to solve them was definitely beneficial.”

The conference wrapped up with the Resource Advisor Panel, a forum that enabled the major command resource advisors to field questions directly from conference attendees. A conference favorite, this year’s RA Panel was perhaps the best ever, with participation from every major command.

The conference closed with Ms. Maldonado thanking everyone for their participation, and thanking Col Carl Tickel, the Space Command Civil Engineer, for serving as the host major command. “Your Space Command staff provided us world-class support,” Ms. Maldonado said, “and as a result this conference has been a huge success.”

Maj Martin Granum, Program Management Branch, Operation and Maintenance Division, Office of The Civil Engineer, HQ USAF.

(Top)* Ms. Rita J. Maldonado addresses conference attendees. *(Center)* Displays from each major command, field operating agency and direct reporting unit showcased their people, installations and mission. *(Bottom)* Brig Gen Wilma Vaught, USAF (ret), *(second from left)* was the conference dinner keynote speaker. *(Photos courtesy AF/ILEO)

PEOPLE

Firefighter Wins Tuskegee Award

A Moody Air Force Base, Ga., firefighter is a recipient of the 2000 CMSgt Fred Archer Military Award given annually to outstanding senior enlisted members by Tuskegee Airmen Inc.

With more than 100 submissions Air Force-wide, MSgt Steven C. Adams, 347th Civil Engineer Squadron Fire Protection Flight, was chosen as one of four winners of the military awards.

Adams was cited for providing fire protection for 92 combat aircraft and for 319 facilities worth $238 million. He supervises 22 military and six civilian firefighters. He also manages a $3 million firefighting vehicle flight.

Adams has responded to 43 in-flight and ground emergencies involving unsafe landing gear, afterburner blowouts, barrier engagements, hot brakes and main power failures, and hasn't lost any aircraft to fire.

Adams thanked CMSgt Rodney Coleman, 347th CES Fire Protection Flight chief, for noticing the things he did. "Without him, I wouldn't have won. Chief Coleman always takes the time to write down everyone's accomplishments on paper, as well as praise them."

Tuskegee Airmen Inc. was founded in 1972 and exists mainly to motivate young Americans to achieve excellence in education; nondiscriminatory practices in all aspects of life; and an increased pursuit of careers in aviation. The awards are open to all Air Force people in every career field. *(SSgt Nickol Houston, 347th Wing Public Affairs)*

MSgt Steven Adams, 347th CES, is a recipient of the 2000 Chief Master Sergeant Fred Archer Military Award given to outstanding senior enlisted members by the Tuskegee Airman Inc. *(Photo by TSgt Cecil Daw)*

Key Personnel Changes

Brig Gen Lawrence F. Enyart retired Jan. 12 as the mobilization assistant to The Civil Engineer, Headquarters U.S. Air Force, Pentagon. Col Donald L. Ritenour, formerly the special assistant to the commander of Air Education and Training Command, succeeds General Enyart.

Col Cornelius J. (Connie) Carmody, formerly The Civil Engineer, Headquarters Air Combat Command, Langley Air Force Base, Va., succeeds Col J. Carlton Tickel as The Civil Engineer, Headquarters Air Force Space Command, Peterson Air Force Base, Colo. Colonel Tickel retires this spring.

Col Patrick A. Burns, formerly The Civil Engineer, Headquarters Pacific Air Forces, Hickam AFB, Hawaii, succeeds Colonel Carmody as The Civil Engineer, HQ ACC.

Colonel David W. DeFoliart, former Programs Division chief, Office of the Civil Engineer, Headquarters U.S. Air Force, Pentagon, succeeds Colonel Burns as The Civil Engineer, HQ PACAF.

Col Jon D. Verlinde, deputy director of civil engineering for Air Mobility Command, Scott AFB, Ill., has been assigned as The Civil Engineer, Headquarters Air Force Reserve Command, Robins AFB, Ga. Colonel Verlinde replaces Col John W. Mogge Jr., who retires March 31.

James R. Einwaechter, P.E., has joined the Headquarters Air Force Civil Engineer Support Agency staff at Tyndall AFB, Fla., as executive director. He is formerly a program manager in the Engineering Division, Office of the Civil Engineer, Headquarters U.S. Air Force, Pentagon.

Firefighters in Worldwide Competition

Air Force firefighters were part of approximately 1,000 firefighters who qualified and participated in the ninth annual Firefighter World Challenge Competition, Nov. 1-4, in Las Vegas, Nev. Firefighters from Edwards and Travis AFBs, Calif.; Little Rock AFB, Ark.; Mildenhall Air Base, United Kingdom; and Ramstein AB, Germany, competed in the international event.

During the finals, the Edwards and Travis teams were selected to perform the demonstration run for the relay event. Travis won the head-to-head competition between the two teams. Of the four major events, the highest Air Force finish was by Ramstein's MSgt Michael Cavilerio in the Chiefs Competition. The challenge, billed as the "toughest two minutes in sports," was broadcast by ESPN on Dec. 10. *(CMSgt Carl Glover, HQ AFCESA)*

2000 Chief Master Sergeant-Selects

The following Air Force civil engineer NCOs have been selected for promotion to chief master sergeant. Congratulations to all on their leadership and achievement.

Raymond F. Allen II
Richard G. Auld
John S. Bender
Gary D. Bushnell
Donald L. Cote
Vincent E. Davis
Glenn L. Deese
Calvin E. J. Dickens
Antonio J. Francis
Steven Fuller
Gary A. Gentz
Dennis J. Hackenberger
Jeffrey L. Hill
Russ L. Lichtenberger
Ricardo V. Montoya
Michael J. O'Donnell
Dwayne E. Painter
Douglas L. Papineau
Susan A. Pope
Timothy P. Steele
Darryl R. Stewart
Steven A. Taylor
Troy C. Wiitala

2000 Major-Selects

The following Air Force civil engineer officers have been selected for promotion to major. Congratulations to all on their dedication and achievement.

Neil P. Arnold
Peter I. Bako
Lamberto M. Braza
Wanda V. Broussard
David W. Bruce
Andrew C. Caraway
R. Craig Cole
Anthony O. Copeland
Michael A. Copley
Anne M. Coverston
Edgar M. Cunanan
Stephen P. Demianczyk
Christopher G. Duffy
Saroya I. Follender
John A. Frey
Timothy L. Fuller
Jay D. Glascock
Kent C. Halverson
Mark E. Hanley
Daniel T. Holt
Tay W. Johannes
Gregory S. Keysor
Stephen R. Koenig
Marie O. Kokotajlo
Kathryn L. Kolbe
Steven N. Lacasse
Mary P. Langhill
Henry F. Marcinowski III
William P. Mazzeno
Mark H. McCloud
Gregory L. McClure
Bobbie A. Moore
Gregory R. Ottoman
Steven L. Phillips
Tasha L. Pravecek (BEE)
Anthony R. Ramage
Thomas A. Rietkerk
Juvenal Q. Salomon
Paul F. Sand
Michael E. Saunders
Craig J. Slebrch
Thomas J. Svoboda
Jeffery S. Szatanek
Forrest C. Thompson
Raymond Tsui
Jeffrey R. Ullmann
David S. Vaughn
Mark A. Vivians
Eric L. Warner
Scott A. Warner
Jonathan D. Webb
Joseph P. Wedding III
Michael R. Wehmeyer
Greg A. Williams
R. Brec Wilshusen
Frank V. Wilson
Marjorie E. Wimmer

USAFE CTS Celebrates 50 Years of Service

The United States Air Forces in Europe Construction and Training Squadron opened its doors in September to local politicians, unit members past and present, and many other special guests in celebration of 50 years of service to the Air Force in Europe. With a functional and historical tie to the 7329th Labor Service Unit (LSU) formed September 8, 1950, USAFE CTS basked in the memories of past and present accomplishments.

USAFE CTS has gone by many names over the years and has been aligned under varied commands. Originally designated the 7329th LSU and composed of local national civilian employees, the unit was attached to the 862nd Engineer Aviation Battalion. It was based in Germany at Rhein Main Air Base until May 1952, when it moved to Ramstein AB.

The unit was redesignated the 7002nd Civilian Service Unit in July 1963, falling under command of the HQ USAFE Civil Engineer. But it was not until May 1971 that the unit had its first military members assigned to maintain aircraft arresting systems. At this time, the unit activated as the 7002nd Civil Engineering Flight.

Known worldwide as "The Deuce," the unit picked up the 7219th and 7319th RED HORSE CEFs in June 1990. In June 1993, the unit was redesignated the 702nd Civil Engineer Squadron. This change was short-lived as the unit changed its name in July 1994 to the 617th CES. In December 1997, the unit took its current designation as the USAFE Construction and Training Squadron.

USAFE CTS provides three distinct missions: construction, executed primarily through the Civilian Service Unit, military training, and aircraft arresting system depot maintenance.

The construction flight has conducted extensive projects in Libya, Morocco, Turkey, Spain, Greece, France, Italy, Slovakia, Slovenia, Saudi Arabia, Jordan, Hungary, England and Germany, with future projects scheduled in Slovakia, Israel, Egypt, Tunisia, the Azores and Uganda. These projects have included runway construction and marking, roads, parking areas, hangars, hospitals, churches, schools, bombing ranges, and even a pipeline in Turkey.

The training flight trains all of USAFE's civil engineer and services squadrons. This professional cadre of instructors conducts six-day Silver Flag courses for up to 1,000 civil engineer and services personnel a year as one of only three such sites in the Air Force. In addition, USAFE CTS has established Mission Essential Equipment Training (MEET) courses that provide deployable personnel in-depth training on trouble-shooting and maintenance of deployable assets. When not conducting training, these instructors are often called upon by HQ USAFE to survey airfields and conduct time-sensitive construction projects. One such project was the construction of two aircraft hangars in April 1999. These facilities were key to increasing Predator Unmanned Aerial Vehicle support in the air war over Serbia.

The unit's depot maintenance function is responsible for all depot-level maintenance and repair of fixed and mobile aircraft arresting systems within the command. With only 17 military members, this section maintains 76 barrier systems throughout Europe, North Africa and the Middle East. They maintain mobile aircraft arresting systems in support of HQ USAFE, NATO and Joint Chiefs of Staff exercises, daily flying operations and contingencies.

The USAFE commander, Gen Gregory S. Martin, in his remarks during the anniversary ceremony, observed, "Yours is a long and rich tradition of service that arose out of the Berlin Airlift to shine in operations ranging from Norway to North Africa. Whether responding to high-priority, time-sensitive construction requirements, maintaining and repairing aircraft arresting systems, or training our own civil engineers, your work is marked by excellence."

Happy 50th, USAFE CTS!
(SSgt Toby Dunlap)

(Left to right) **A1C Brooke Tweedy, Lt Col Sean Saltzman, Herr Klaus Beau and Col Glenn Haggstrom prepare to cut the anniversary cake.** ***(Photo courtesy USAFE CTS)***

Major General George E. Ellis

1936-2001

Maj Gen George E. "Jud" Ellis, USAF (retired), former Director of Engineering and Services from 1986 to 1989, died of cancer in Riverton, Wyo., Jan. 12. He was 64.

General Ellis was known as an innovator for his readiness to try new technologies and management systems and as a stalwart supporter of civil engineering's ability to meet its wartime mission.

Ellis was born in 1936 in Millinocket, Maine. He graduated from the U.S. Military Academy at West Point in 1958. He later earned a Master of Science degree in systems analysis from Arizona State University and a Master of Business Administration from George Washington University. He began his Air Force career as a pilot trainee, but humbly admitted in a 1983 *Engineering and Services Quarterly* interview that, "I didn't fly the T-33 very well … and for my sake and the Air Force's, they asked me to fly an engineering desk."

One of his first assignments as an engineer was advisor to the Vietnamese air force base commander at Tan Son Nhut Air Base, Republic of Vietnam, where he said he "learned patience in an environment that was full of frustration."

It was a lesson that served him well in later assignments, particularly as the deputy chief of staff for engineering and services at Tactical Air Command. There, he oversaw a massive refurbishment of TAC facilities under long-time TAC commander Gen. Wilbur Creech and the transition of civil engineering to the personal computer age. At a time when computers were generally considered toys, he saw their value as a management tool.

"I was convinced that managing 3,000 job orders per base, per month, could not be done effectively with a stubby pencil." He helped bring the first desktop computers, WANGs, to civil engineering. But before he could go out and buy them, he had to sell the idea to his own staff. "I didn't force the terminals on anybody. I said, 'Use them if you want to.'" They did, and soon wondered how they ever got along without them.

Maj Gen George E Ellis

While interested in exploiting the latest technologies, Ellis never forgot that the primary mission of civil engineers is to support the warfighter. "We will not go to war without blue suit engineering folks. We are part of the varsity, the first team," he emphasized.

During his tenure, Ellis revitalized Prime BEEF training and was an avid promoter of RED HORSE and the Readiness Challenge competition. He strongly believed that civil engineers should train the way they deploy and, in fact, many of his ideas are still in place today. The Readiness Challenge Ellis Award is named in his honor.

Ellis retired in 1989 but remained involved in the career field as a CE Founder. His management style, sometimes referred to as "contagious motivation," endeared him to his colleagues and his troops, a number of whom were able to attend his final farewell in Riverton Jan. 17. *(Compiled by the Air Force Civil Engineer Support Agency public affairs and history offices.)*

Editor's note: The Directorate of Engineering and Services was the precursor organization to the office of The Air Force Civil Engineer (HQ USAF/ILE), from 1975 to 1991.

'Friendship Through Sport'

SrA Corey Farkas, 10th CES, U.S. Air Force Academy, Colo., stands at the podium after receiving the Silver Medal for the 130-kg weight division at the 19th World Wrestling Championships held at Camp Lejeune Marine Corps Base, N.C., on Oct. 26, 2000. The Conseil International du Sport Militaire (CISM) 19th World Military Wrestling Championship is a multinational wrestling tournament hosted by Lejeune. Competing nations included: Brazil, China, Estonia, Finland, Germany, Greece, Slovakia, Turkey, the United States and Vietnam.

Founded in 1948, CISM is one of the largest multidisciplinary organizations in the world. With a motto of "Friendship Through Sport," CISM, with its 122 member nations, uses the playing field to unite armed forces of countries that may have previously confronted each other due to political or ideological differences. *(Photo by SSgt Larry A. Simmons)*

Air Force Water, Energy Conservation Efforts Earn Federal Awards

Out of crisis came rewards for three of the four Air Force organizations receiving the Department of Energy's Federal Energy and Water Management Awards. Continued success in meeting federal energy goals helped the fourth.

The awards were presented to Randolph and Dyess Air Force Bases, Texas; March Air Reserve Base, Calif.; and the Air Force Civil Engineer Support Agency, Tyndall AFB, Fla., at a ceremony in Washington D.C. October 12.

The two Texas bases faced exceptional challenges because of extreme drought conditions in the state. Dyess received DoE's Water Conservation/ Beneficial Landscaping Award after civil engineers there helped reduce water consumption on base by 30 percent when the nearby city of Abilene implemented mandatory water rationing. Abilene supplies water to the base.

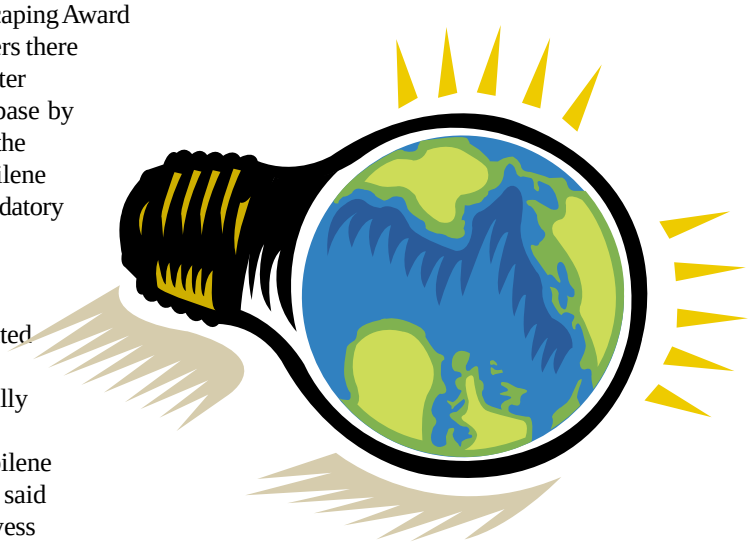
"We anticipated rationing would happen and actually started about two months before Abilene began rationing," said Tom Denslow, Dyess energy manager.

Although the entire base community did its part to conserve water, Denslow said the bulk of the credit belongs to the base civil engineers. "The soil here is clay, and when it dries the ground starts to move about, causing pipes to break and joints to give out," he said. "They had to respond daily to water breaks."

A few hundred miles to the south, engineers at Randolph faced similar problems. "We had about 90 days that summer without rain," said Joseph Hockaday, Randolph's water program manager. "We had cracks in the ground that were so big cats and small dogs would fall in — literally."

Randolph, like the rest of the San Antonio area, receives its water from an aquifer, but drought conditions forced city and government officials to place strict pumping limits on it. "It was being drawn down too low," said Hockaday. "That threatened streams about 25 miles north of the base, which threatened several endangered species living in the streams."

Those limitations forced civil engineers to look at creative ways to save water. By repairing water distribution systems, recycling nonpotable reuse water, limiting landscape watering and curtailing some activities such as flushing sewer lines and filling backyard pools, the base remained 1.6 million gallons below its yearly water target. The key, Hockaday said, was involving the entire base community, keeping them informed, and encouraging their participation. "This raised everybody's awareness about the need to conserve." And it earned the base DoE's Water Conservation/ Beneficial Landscaping Award.



In California, dry weather for once was not the problem; cutting through a forest of paperwork to construct an energy management plan was. In 1996, March AFB transitioned from an active duty base to a Reserve/Air National Guard base under Base Realignment and Closure actions. In the turmoil of the transition, documentation of energy and utility management programs became "practically non-existent," and reports, energy baseline memorandums of agreement and utility sales agreements often were ignored or misplaced.

"I walked into an office stacked at least five feet high with boxes and thought, 'What am I getting myself into?'" said Frank Malinick, energy program manager for the 452nd Air Mobility Wing. He and resource management specialist Mari French chopped down the pile and were able to begin shaping an energy program for the base. "We finally got all the paperwork up to date and we've managed to get everything straightened out," he said. "We're not 100 percent, but considering where we started, we're doing okay." Okay enough for the wing to receive the DoE Exceptional Service Award (small group).

While there was no crisis for the Air Force Civil Engineer Support Agency, it was rewarded for continuing to develop creative ways to meet federally-mandated energy goals for the Air Force. The agency received DoE's Alternative Financing Projects Award (small group category) for its use of Energy Savings Performance Contracts to help meet those goals.

ESPCs are agreements between private industry and DoD to install and maintain performance-enhancing, energy-efficient equipment on installations. The agency assisted installations in awarding 16 ESPCs last year that collectively should save the Air Force more than a billion dollars over a 25-year period.

"It's definitely a win-win program," said Rich Bauman, one of AFCESA's energy project managers. "We get improved performance with little or no expenditure on our part, and companies make a profit from any energy savings that may result."

Former President Clinton ordered all federal agencies to reduce energy consumption by 35 percent by 2010 (reductions are based on a baseline established in 1985). "We've aggressively pursued ESPCs as a way of helping bases meet that goal, and we're on target for meeting them on time," Bauman said. *(TSgt Michael A. Ward, HQ AFCESA Public Affairs)*

Civil Engineer Senior Officers and Civilians

General Officers

HQ USAF	Maj Gen Robbins, Earnest O. II	Pentagon	The Civil Engineer
HQ DeCA	Maj Gen Courter, Robert J. Jr.	Fort Lee	Director, Defense Commissary Agency
HQ AFMC	Maj Gen Stewart, Todd I.	Wright-Patterson AFB	Director, Plans and Programs
HQ AMC	Brig Gen Fox, L. Dean	Scott AFB	Director, Civil Engineering
HQ AFMC	Brig Gen Cannan, David M.	Wright-Patterson AFB	The Civil Engineer

Colonels

HQ USAFE	Alston, Lavon	Ramstein AB	Deputy Civil Engineer
AETC	Amend, Joseph H. III	Wright-Patterson AFB	Dean, CE and SVS School, AFIT
AFELM NATO	Anderson, Benjamin	AFSOUTH/Naples	Director, OPS Infrastructure
AFRC	Angel, Edward (AF Res)	Barksdale AFB	Commander, Det 1, 307 RHS
AFSPC	Augustenborg, Jay (AF Res)	Malmstrom AFB	IMA to 341 SW Commander
HQ AMC	Baldetti, Peter J.	Scott AFB	Chief, Planning and Programming Division
SAF/MII	Baldwin, Carey	Pentagon	Director for Facility Management
HQ AFCESA	Barthold, Bruce R.	Tyndall AFB	Commander, AF Civil Engineer Support Agency
PACOM	Baughman, James D.	Yongsan Army Post	DACOS, Engineer, HQ ROK/US CFC
USSPACECOM	Bednar, Byron J. (AF Res)	Peterson AFB	IMA to the J4
AFMC	Bird, David F. Jr.	Eglin AFB	Commander, 96 ABW
USAFA	Borges, Scott K.	USAF Academy	The Civil Engineer/Commander, 10 CEG
AMC	Brackett, James S. (sel)	Scott AFB	Commander, 375 CES
OSD	Bradshaw, Joel C. III	Pentagon	Chief, Air Force Programs
USAFA	Bratlien, Michael D. (AF Res)	USAF Academy	MA to the Superintendent
OH ANG	Brazeau, Richard L. (ANG)	Camp Perry	Commander, 200 RHS
HQ AFCESA	Brendel, Lance C.	Tyndall AFB	Director, Operations Support
HQ PACAF	Bridges, Timothy K. (sel)	Hickam AFB	Chief, Environmental Division
AETC	Brittenham, Larry W. (sel)	Maxwell AFB	Air War College student
HQ ACC	Burns, Patrick A.	Langley AFB	The Civil Engineer
HQ USAF	Byers, Timothy A.	Pentagon	Chief, Readiness & Installation Support Division
HQ AFSPC	Carmody, Cornelius J. "Connie"	Peterson AFB	The Civil Engineer
HQ USAF	Chafin, James T. (AF Res)	Pentagon	IMA to Director of Plans and Integration
AETC	Chisholm, MaryAnn H.	Maxwell AFB	Air War College student
HQ AFCEE	Coke, Ronnie L.	Brooks AFB	Director, Environmental Restoration
AMC	Coker, Gregory W. (sel)	Dover AFB	Deputy Commander, 436 SPTG
FL ANG	Cook, Jere (ANG)	Camp Blanding	Commander, 202 RHS
HQ AFCESA	Cook, Michael J.	Tyndall AFB	Director, Technical Support
PACAF	Coullahan, Patrick M.	Elmendorf AFB	Deputy Commander, 611 ASG/Eleventh Air Force Civil Engineer
AETC	Correll, Mark A. (sel)	Maxwell AFB	Air War College student
AETC	Crummett, Thurlow E. "Terry"	Sheppard AFB	Commander, 366 TRS
HQ ACC/DRMC	Daly, Patrick R.	Langley AFB	Chief, Agile Combat Support Mission Area Team
HQ PACAF	DeFoliart, David W.	Hickam AFB	The Civil Engineer
USAFE	Dinsmore, Raymond E. (sel)	RAF Mildenhall	Deputy Commander, 100 SPTG
HQ ACC	DiRosario, Joseph P.	Langley AFB	Chief, Programs Division
HQ PACAF	Drake, William J.	Hickam AFB	Deputy Civil Engineer
ACC	Eulberg, Delwyn R.	Nellis AFB	Commander, 99 ABW
HQ USAF	Fadok, Faith H. (AF Res)	Pentagon	IMA to the Engineering Division Chief
HQ USAFE	Fernandez, Richard	Ramstein AB	Chief, Programs Division
HQ USAFE	Fetter, Clifford C.	Ramstein AB	Chief, Environmental Division
HQ AETC	Fink, Patrick T. (BSC)	Randolph AFB	Chief, Environmental Division
PACAF	Fisher, Charles B.	Yokota AB	Chief, Civil Engineering, Fifth Air Force
HQ USAF	Fisher, Marvin N. (sel)	Pentagon	Deputy Chief, Programs Division
HQ AMC	Fitz, Michael S.	Scott AFB	Deputy Director, Civil Engineering
AETC	Floyd, William R.	Sheppard AFB	Commander, 782 TRG
PACAF	Formwalt, William A.	Kadena AB	Commander, 18 CEG
PACAF	Fouser, John D.	Kunsan AB	Commander, 8 SPTG
USAFA	Fryer, Richard A. Jr. (sel)	USAF Academy	Commander, 510 CES

HQ ACC	Fukey, Michael F. (Pilot)	Langley AFB	Chief, Base Support Division
PACAF	Gaffney, Timothy P. (sel)	Misawa AB	Commander, 35 CES
HQ AFCEE	Garcia, Samuel E.	Brooks AFB	Executive Director
HQ AETC	Gilbert, Russell L. "Rusty"	Randolph AFB	The Civil Engineer
AETC	Green, Gordon S. (sel)	Lackland AFB	Commander, 37 CES
HQ USAF	Greenough, William T. (sel)	Pentagon	Chief, Plans and Policy Branch
HQ AMC	Griffin, Bobbie L. Jr. (sel)	Scott AFB	Chief, Environmental Programs Division
HQ AFMC	Griffith, Thomas M.	Wright-Patterson AFB	Chief, Programs and Operations Division
HQ AETC	Guy, Homer L.	Randolph AFB	Chief, Engineering Division
HQ USAFE	Haggstrom, Glenn D.	Ramstein AB	The Civil Engineer
OSD/RA	Hart, Thomas H. (AF Res)	Pentagon	Deputy Director, Environmental Mgmt.
HQ USAF	Hartman, Albert S. (AF Res)	Pentagon	IMA to the Housing Division Chief
AFRC	Haulman, David (sel) (AF Res)	Barksdale AFB	Commander, 917 CES
HQ PACAF	Hayden, Thomas F. III	Hickam AFB	Chief, Readiness Division
AFRC	Haythorn, Thomas B. (AF Res)	Dobbins ARB	Commander, 628 CEF
PACAF	Hoarn, Steven E.	Hickam AFB	Commander, 15 CES
MO ANG	Hobbs, C. Ron (ANG)	Lambert IAP	Commander, 231 CEF
SAF/MII	Holland, James P. (sel)	Pentagon	Military Assistant
AETC	Horsfall, John D.	Maxwell	Director, Air University Inspector General
AMC	Howe, Dave C. (sel)	Andrews AFB	Commander, 89 CES
HQ PACAF	Howell, Richard C.	Hickam AFB	Chief, Operations Division
HQ AFSOC	Hrapla, Michael F.	Hurlburt Field	The Civil Engineer
HQ USAF	Ingenloff, Richard J.	Pentagon	Chief, Engineering Division
OASD/RA	Jameson, Stephen A. (ANG)	Pentagon	Deputy Director, Construction
AFRC	Jamieson, Richard (AF Res)	Kelly AFB	Commander, 307 RHS
HQ AMC	Janiec, Gordon R.	Scott AFB	Chief, Operations Division
AMC	Jeffreys, John R.	McChord AFB	Director, RODEO 2002
AETC	Jeter, Drew D. (sel)	Maxwell AFB	Air War College student
AFMC	Judkins, James E.	Edwards AFB	Commander, 95 CEG
PACAF	Kanno, Neil K.	Osan AB	Commander, 51 SPTG
ACC	Keith, Edmond B. (sel)	Langley AFB	Commander, 1 CES
HQ AFMC	Kennedy, James R.	Wright-Patterson AFB	Chief, Organization and Privatization Division
HQ USAF	Kohlhaas, Karen D. (AF Res)	Pentagon	Assistant for Reserve Affairs
AFSPC	Kopp, Robert D.	Vandenberg AFB	Commander, 30 CES
AFMC	Korslund, Per A.	Hill AFB	Commander, 75 CEG
ACC	Kuhlmann, Bryan L. (sel)	Langley AFB	AEFC/Combat Support Division
HQ AFCESA	Kuhns, James E. (AF Res)	Tyndall AFB	IMA to the Commander
HQ AMC	Lally, Brian J. (AF Res)	Scott AFB	IMA to the Director, Civil Engineering
HQ PACAF	Lancaster, Louis K.	Hickam AFB	Chief, Programs Division
HQ AFRC	Lemoi, Wayne T. (AF Res)	Robins AFB	Chief, Readiness Division
AETC	Leptrone, Jeffrey L.	Maxwell AFB	Air War College student
MD ANG	Lew, Alan E. (ANG)	Martin State Airport	Commander, 235 CEF
HQ AFRC	Lillemon, Steven K. (sel)	Robins AFB	Chief, Environmental Division
HQ USAF	Loomis, Paula J. (sel) (AF Res)	Pentagon	IMA to Environmental Division Chief
ACC	Lyon, James D.	Holloman AFB	Commander, 49 MMG
HQ USAFE	Macon, William P. (sel)	Ramstein AB	Chief, Readiness Division
ACC	Mayfield, Edward D.	Hurlburt Field	Commander, 823 RHS
USEUCOM	McClellan, Richard G.	Garmisch, Germany	Student, George C. Marshall Center
HQ AFCESA	McConnell, Bruce F.	Tyndall AFB	Director, Contingency Support
AMC	Medeiros, John S. (sel)	McChord AFB	Deputy Commander, 62 SPTG
HQ USAF	Miller, Brian L.	Pentagon	Chief, Environmental Division
HQ AFCEE	Miller, Ross N. (BSC)	Brooks AFB	Director, Environmental Quality
ACC	Minto, Paul E.	Nellis AFB	Commander, 820 RHS
HQ AFCESA	Moreau, David C. (ANG)	Tyndall AFB, FL	CE ANG Advisor
AFSPC CES	Mykes, Terrance G.	Peterson AFB	Commander, Civil Engineer Flight
AFMC	Norrie, Michael D.	Robins AFB	Commander, 78 CEG
HQ AFSPC	Parker, Richard P.	Peterson AFB	Deputy Civil Engineer
AETC	Patrick, Leonard A. (sel)	Randolph AFB	Commander, 12 CES
OSD	Peters, David T.	Pentagon	Pollution Prevention Team Leader
USAFE	Pokora, Edward J.	Ramstein AB	Commander, 86 CEG
AFMC	Purvis, Quincy D.	Eglin AFB	Commander, 96 CEG
HQ AFMC	Quinn, William R.	Wright-Patterson AFB	Chief, Engineering and Construction Division/AFMC CES/CC
11 Wing	Richardson, Cardell K.	Bolling AFB	Commander, 11 SPTG
HQ USAF	Ritenour, Donald L. (AF Res)	Pentagon	MA to The Civil Engineer
PACAF	Rojko, Paul M.	Osan AB	Seventh Air Force Civil Engineer
AETC	Romano, Sebastian V.	Randolph AFB	Commander, 12 SPTG
AFCEE	Rosson, Roark M. (AF Res)	Brooks AFB	IMA to the Director

AFRC	Russell, John P. Jr. (sel) (AF Res)	Scott AFB	Commander, 932 SPTG
HQ ACC	Ryburn, James T.	Langley AFB	Chief, Readiness Division
AFMC	Saunders, William R. (sel)	Los Angeles AFB	61 Air Base Group Civil Engineer
HQ AFSPC	Schmidt, Michael H.	Peterson AFB	Chief, Programs Division
HQ AFRC	Scrafford, Andrew R. (sel)	Robins AFB	Chief, Engineering Division
USAFA	Seely, Gregory E. (BSC)	USAF Academy	Prof. & Dept. Head, Civil & Environmental Engineering
OSD	Selstrom, John P. Jr.	Pentagon	Environmental Restoration Program Manager
HQ USAF	Sharp, Kerry L. (AF Res)	Pentagon	IMA to the Programs Division Chief
HQ ACC	Shelton, Kenneth P. (sel)	Langley AFB	Chief, Environmental Division
PACAF	Showers, Duncan H. "Scott"	Elmendorf AFB	Commander, 3 CES
HQ AETC	Singel, Kenneth R.	Randolph AFB	Chief, Programs Division
AMC	Smiley, Charles P. (sel)	McGuire AFB	Commander, 305 CES
HQ USAF	Smith, Emmitt G.	Pentagon	Chief, Housing Division
JCS	Snyder, Cynthia G. (sel)	Pentagon	J4 Joint Staff Engineer Officer
HQ USAF	Somers, Paul W.	Pentagon	Chief, Privatization Division
HQ AFSOC	Speake, Nancy L.	Hurlburt Field	Chief, Engineering Division
CO ANG	Sprenkle, Dave (ANG)	Buckley AFB	Commander, 240 CEF
HQ AFMC	Stanley, Tad A.	Wright-Patterson AFB	Deputy Civil Engineer
HQ ACC	Stephens, Eric L. (AF Res)	Langley AFB	IMA to The Civil Engineer
SAF/MIQ	Stern, Edmund H. (ANG)	Pentagon	ANG Advisor to SAF/MIQ
AMC	Streifert, Scott F.	Travis AFB	Commander, 60 SPTG
HQ ANG	Stritzinger, Janice M. (ANG)	Andrews AFB	The ANG Civil Engineer
HQ AFCEE	Strom, Randie A.	Brooks AFB	Director, Environmental Conservation & Planning
HQ ACC	Sweat, David A.	Langley AFB	Deputy Civil Engineer
11 Wing	Thady, Randall J.	Bolling AFB	Commander, 11 CES
USAFE	Thorpe, York D. (sel)	RAF Mildenhall	Commander, 100 CES
AETC	Tinsley, Hal M.	Sheppard AFB	Commander, 82 CES
HQ AIA/XPC	Torchia, Linden J. (sel)	Kelly AFB	Chief, Civil Engineer Division
HQ AETC	Turner, Randall L.	Randolph AFB	Chief, Operations Division
SAF/MII	Vazquez, Luis A. (AF Res)	Pentagon	Assistant for Reserve Affairs
HQ AFRC	Verlinde, Jon D.	Robins AFB	The Civil Engineer
HQ AFMC	Wallington, Cary R.	Wright-Patterson AFB	Deputy, Installations and Support
AFRC	West, Robert G. (sel) (AF Res)	NAS/JRB, Texas	Commander, 301 CES
HQ USAF	Whalen, Daniel P. (sel) (AF Res)	Pentagon	IMA to Readiness and Installation Support Division Chief
ACC	White, Arvil E. III	Nellis AFB	Commander, 99 CES
HQ AFMC	Wittliff, Danny J. (AF Res)	Wright-Patterson AFB	IMA to The Civil Engineer
ACC	Woods, Clinton C.	Malmstrom AFB	Commander, 819 RHS
AETC	Worrell, Josuelito (sel)	Maxwell AFB	Air War College student
HQ USAF	Zander, Steven W. (sel)	Pentagon	Chief, Housing Investment Branch
HQ AFSPC	Zelenok, David S. (AF Res)	Schriever AFB	IMA to 50 Space Wing Commander

Senior Executive Service

HQ USAF	Aimone, Michael A.	Pentagon	The Deputy Civil Engineer
HQ AFCEE	Erickson, Gary M.	Brooks AFB	Director, Air Force Center for Environmental Excellence
AFBCA	Lowas, Albert F. Jr.	Arlington VA	Director, Air Force Base Conversion Agency

GS/GM-15s

HQ AFCESA	Anderson, Myron C.	Tyndall AFB	Chief, Civil and Pavements Division
HQ AFCEE	Bakunas, Edward J.	Brooks AFB	Chief, Comprehensive Planning
HQ USAF	Barrett, Robert C. III	Pentagon	Chief, Programs and Analysis Branch
HQ AFMC	Bek, David J.	Wright-Patterson AFB	Chief, Resources Division
USSOCOM	Bosse, Harold	MacDill AFB	The Civil Engineer
HQ AFSPC	Bratlien, Michael D.	Peterson AFB	Chief, Engineering Division
AFBCA	Brunner, Paul G.	McClellan AFB	BRAC Environmental Coordinator
AFMC	Clark, Michael J.	Eglin AFB	Deputy Base Civil Engineer
HQ ANG	Conte, Ralph	Andrews AFB	Chief, Programming Division
AFBCA	Corradetti, John J. Jr.	Arlington VA	Program Manager, Division A
HQ USAF	Corsetti, William V.	Pentagon	Rotation, Strategic Planner, J5, Strategy Division
AFMC	Coyle, Stephen	Robins AFB	Director, Environmental Management
HQ AFRC	Culpepper, Hilton F.	Robins AFB	Assistant Civil Engineer
AFMC	Dalpias, E. Allan	Hill AFB	Director, Environmental Management
HQ AFCESA	Daugherty, Patrick C.	Tyndall AFB	Air War College
AFREA	Edwards, William E.	Bolling AFB	Director, AF Real Estate Agency
HQ AFCESA	Einwaechter, James R.	Tyndall AFB	Executive Director

HQ ACC	Firman, Dennis M.	Langley AFB	Chief, Construction Division
AFBCA	Frank, Joyce K.	Arlington VA	Deputy Director, Air Force Base Conversion Agency
HQ USAF	Franklin, George H. Jr.	Pentagon	Chief, Housing Privatization Branch
HQ PACAF	Fujimoto, George S.	Hickam AFB	Chief, Environmental Restoration Branch
AFMC	Gray, William G.	Arnold AFB	Technical Director
HQ USAF	Halvorson, Kathryn M.	Pentagon	Deputy Chief, Housing Division
AFMC	Harstad, Richard D.	Wright-Patterson AFB	Chief, Acquisition ESH Division
AFBCA	Jackson, Dale O.	Arlington VA	DLAMP Rotation, Army Corps of Engineers
AFMC	Johnson, Gary K.	Wright-Patterson AFB	Director, 88 Civil Engineer Directorate
AFBCA	Kempster, Thomas B.	McClellan AFB	Senior Representative
AFBCA	Leehy, Lawrence R.	Pentagon	Program Manager, Division C
HQ AFCEE	Leighton, Bruce R.	Brooks AFB	Technical Assistant, Environmental Conservation Planning
AFMC	Lester, Ronald J.	Wright-Patterson AFB	Director, Environmental Management
AFCEE	Lopez, Edward	Dallas TX	Director, Central Region Environmental Office
AFSPC	Lowsley, James P.	Vandenberg AFB	Deputy Base Civil Engineer
HQ AMC	Mack, Robert D.	Scott AFB	Chief, Housing Division
HQ AFSPC	Maher, Gary	Peterson AFB	Chief, Environmental Division
HQ USAF	Maldonado, Rita J.	Pentagon	Chief, Operation & Maintenance Division
HQ USAF	McGhee, Michael	Pentagon	Chief, Environmental Quality Branch
HQ USAF	Moore, Robert M.	Pentagon	Chief, Program Management Branch
HQ AFMC	Mundey, Karl J.	Wright-Patterson AFB	Chief, Environmental Division
HQ AFCEE	Nelson, Glenn E. Jr.	Brooks AFB	Technical Assistant, Environmental Restoration
HQ AFCEE	Noack, Edward G.	Brooks AFB	Director, Financial Management & Mission Support
HQ ACC	Parker, Paul A.	Langley AFB	Chief, Operations & Infrastructure Division
AFCEE	Pennino, James	San Francisco CA	Director, Western Region Environmental Office
HQ AFCEE	Perritt, Rolan M.	Brooks AFB	Chief, Design Group Division
HQ USAF	Pohlman, Teresa	Washington D.C.	Special Assistant to the Deputy Civil Engineer
AFMC	Polce, Ronald L.	Arnold AFB	Technical Director for Facilities
HQ AFCEE	Potter, Perry	Brooks AFB	Chief, Housing Privatization Division
AFBCA	Reinertson, Kenneth	Pentagon	Program Manager, Division D
HQ AFCEE	Ritenour, Donald L.	Brooks AFB	Director, Design and Construction
HQ AFMC	Sculimbrene, Anthony F.	Wright-Patterson AFB	Exec. Director, Dayton Aviation Heritage Federal Commission
HQ USAFE	Shebaro, Bassim D.	Ramstein AB	Chief, Engineering Division
AFCEE	Sims, Thomas D.	Atlanta GA	Director, Eastern Region Environmental Office
AFBCA	Smith, John Edward B.	Arlington VA	Chief, Environmental Programs and Plans
AFMC	Stephens, Eric L.	Brooks AFB	Human Systems Engineer
HQ AFCEE	Tanner, Gordon	Brooks AFB	Legal Advisor
AFMC	Tuss, Margarita Q.	Wright-Patterson AFB	Chief, Engineering Division
HQ AMC	Van Buren, John L.	Scott AFB	Chief, Engineering Division
HQ ANG	VanGasbeck, David C.	Andrews AFB	Chief, Environmental Division
AFMC	Whitney, Richard G.	Wright-Patterson AFB	Chief, Acquisition ESH Division
HQ ANG	Whitt, William B.	Andrews AFB	Chief, Engineering Division
AFMC	Wood, Richard A.	Edwards AFB	Director, Environmental Protection
HQ PACAF	Yasumoto, Stanley Y.	Hickam AFB	Chief, Engineering Division
SAF/MIQ	Yonkers, Terry A.	Pentagon	Deputy for Resource Management
HQ AETC	Zugay, Anthony	Randolph AFB	Deputy Civil Engineer

Smoke from a major wildfire obscures the skyline past the entrance to Vandenberg Air Force Base, Calif. The nearly 10,000 acre fire began off base September 13, but grew and quickly moved on base, eventually making its way into an area called the Barka Slough. There it began to feed off a huge, naturally occurring underground peat reservoir. Base and civilian fire units were able to contain the surface fire in about three days, however the underground fire continues to burn. ***(Photo by TSgt Scott Wagers)***