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2012 Almanac

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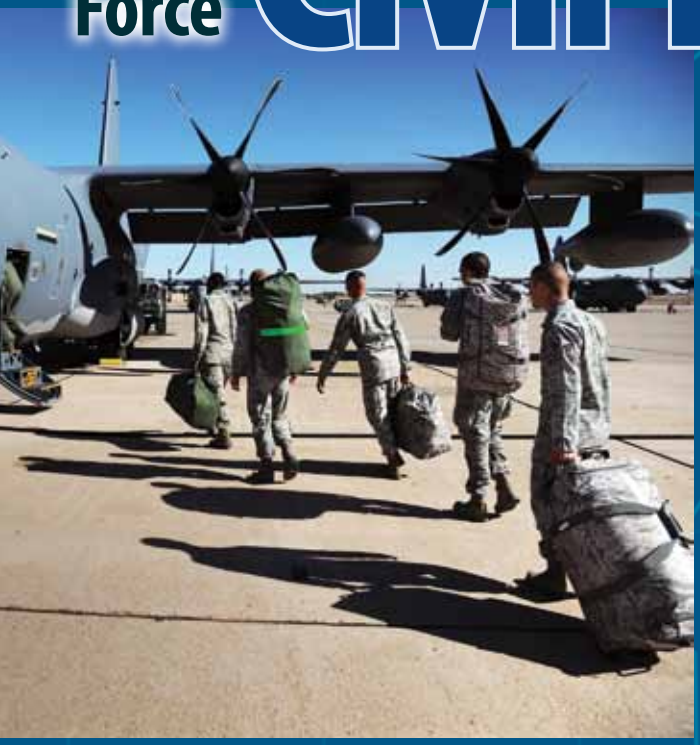

AIR STAFF

MAJOR COMMANDS

On the cover: TSgt Jason Caceres carries an insulated roof panel on a construction site March 22, 2012. Roughly 30 members of the 557th Expeditionary RED HORSE Squadron assisted the 380th Air Expeditionary Wing by constructing three, 20,000 square-foot warehouses to store items sensitive to the harsh weather conditions in the area. *(photo by 1Lt Victoria Porto)*

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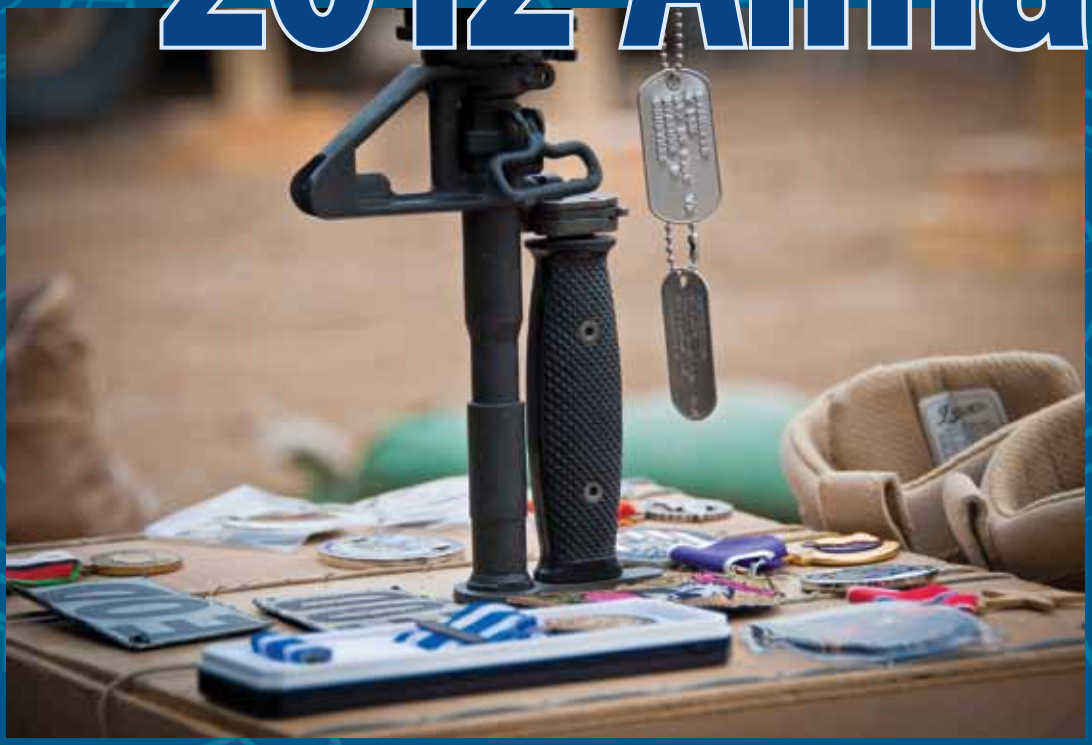


FIELD OPERATING AGENCIES

DIRECT REPORTING UNITS

AFIT

Unless otherwise noted, facts and figures presented are based on information submitted to the Air Force Civil Engineer magazine office, current as of Sept. 30, 2012.

Photos: *(left to right)*
Airmen with the 27 SOCES, Cannon AFB, N.M., board an MC-130J Stinger II during an exercise at Melrose Air Force Range, N.M., Oct. 29, 2012. *(photo by SrA Jette Carr)*

TSgt Joseph Deslauriers, an EOD technician from the 1 SOCES, Hurlburt Field, Fla., speaks during a ceremony at the Pentagon, Nov. 14, 2012. Deslauriers received the Silver Star for gallantry in action. *(photo by A1C Hayden K. Hyatt)*

The Battle Cross for TSgt Matthew Schwartz is decorated with final tokens of honor and appreciation during a memorial ceremony at Camp Leatherneck, Afghanistan, Jan. 24, 2012, that honored three EOD Airmen killed by an IED in Shir ghazi, Helmand province, Afghanistan. *(photo by SSgt David Carbajal)*

Members of the 134th CES dismantle an aircraft inclement weather shelter at Great Falls ANGB, Mont. on Sept. 12, 2012, during their deployment field training. *(photo by SSgt Scott Hollis)*

Transforming to Meet

Once again, I am honored to introduce the Almanac edition of the Air Force Civil Engineer magazine. This outstanding publication is a useful resource for anyone seeking knowledge about the Air Force Civil Engineering community. It not only provides information about our vast Civil Engineer family, but captures many of our accomplishments from the previous year. And for us, 2012 has been an exciting and busy year.

As we continued supporting the warfighter through efficient and effective installation management and expeditionary combat support, we also worked to rapidly transform our organization at all levels. These are monumental tasks, but I am proud to say that we are tackling them with the same "Can Do, Will Do, Have Done" attitude that personifies each member of our community.

This year, we continued to Build Ready Engineers, Build Great Leaders, and Build Sustainable Installations at home station and abroad. Engineers, fire protection and emergency management personnel, and explosive ordnance disposal technicians continue to make a difference every day by leading and supporting high impact missions. In the CENTCOM area of responsibility, we transformed to meet warfighters' needs and to accommodate the end of Operation New Dawn in Iraq. We stood up the 1st Expeditionary Civil Engineer Group to provide Prime BEEF and RED HORSE capabilities in the region. While meeting the "boots on the ground" mandate, we have 35 percent less people in harm's way, yet present the same capabilities to the warfighter. Even now, we are building installations, airfields, and other facilities that support joint and coalition operations across the theater. Firefighters and emergency management personnel continue to protect our infrastructure and fellow warfighters as explosive ordnance disposal Airmen defend our warfighters from improvised explosive devices and unexploded ordnance. We also have engineers deployed in AFRICOM, EUCOM, SOUTHCOM, and PACOM building facilities and installations. We are truly deployed around the world supporting the warfighters.

At home station, Civil Engineer Airmen, both military and civilian, continue to build and maintain sustainable installations — the Air Force's three-dimensional weapons platform. Through the widespread implementation of asset management principles across all of our business lines, we are focusing on efficient and effective management of our resources during the current period of financial austerity. At the same time, we are focused on Building Ready Engineers and Great Leaders by taking advantage of home station training, on-the-job training and other opportunities to ensure that our Civil Engineer Airmen "Get Back to Basics" and have the skills and expertise needed to get the job done.

While we remained focused on our core missions and strategic goals, the Civil Engineer community also engaged in accelerated transformation at all levels in response to national fiscal challenges and anticipated reductions in future budgets. We are changing to ensure we can continue to efficiently and effectively plan, acquire, sustain, operate, manage, and divest our installations' infrastructure. For us, transformation isn't necessarily new; since 2007, we have been transforming the way we do business. Given the size of our enterprise, it is astonishing that we will complete our transformation in just half the time it would take for an industry organization similarly sized. The asset management approach, underpinning our journey toward requirements-based programming, continues to be the key to our transformation efforts, and we must all continue to apply them as part of our normal operations.

Since embarking on an accelerated transformation in November 2011, we have made great progress in focusing our resources to support Air Force priorities. We received approval of Program Action

Our Promising Future

Directive 12-03 from the Secretary of the Air Force and the Air Force Chief of Staff. This is an important milestone because this document codifies the way we will do business in the future.

We began laying the groundwork for organizational changes at our Civil Engineer squadrons to enable their focus on operating and sustaining their installations. Additionally, we are transforming MAJCOM Civil Engineer staffs to enable streamlined support to our squadrons, and the Office of the Civil Engineer at Headquarters Air Force to focus on providing policy, oversight, and resourcing for the Civil Engineer community. Lastly, we stood up the Air Force Civil Engineer Center, consolidating three legacy field operating agencies (AFCESA, AFCEE, and AFRPA) into a single integrated organization that will help our installation and MAJCOM civil engineers accomplish their missions efficiently and effectively. AFCEC is your FOA, on call 24/7/365 to support you at the installations and MAJCOMs, at home or deployed.

While we are well on our path towards transformation, there is still much work to be done. We will continue our commitment to enterprise-wide advocacy and allocation of resources to reduce risks to mission and Airmen. We must centralize, standardize, prioritize, and optimize the way we deliver installation support where it makes sense and where it will not impact readiness. This includes preserving our focus on quality of life and mission by using asset management principles, common levels of service and the best life-cycle value when maintaining and recapitalizing our facilities and infrastructure.

We must also not lose sight of our core missions and responsibilities. Civil engineers are charged with providing effective full-spectrum combat support capabilities and efficient installation support. We must stay focused on our key goals: Building Ready Engineers, Building Great Leaders, and Building Sustainable Installations. Our fellow Airmen and warfighters look to us to provide effective and efficient installation management support, and rely upon us to provide expeditionary combat support when called upon. We cannot and will not let them down.

Maj Gen Byers greets MSgt John Mathis at Bagram Airfield, Jan. 22, 2012, during a visit to the AOR. *(photo by A1C Ericka Engblom)*

It is natural for civil engineers to continuously improve upon the status quo and make things better. This will surely be true in 2013 as we work toward transforming into the Civil Engineer enterprise of the future, which is leaner and more agile. Stay focused and keep informed of all of the changes that impact our community. Continue to be "Brilliant at the Basics," and always strive toward doing things smarter, faster, cheaper, and better.

Thank you for everything you do! Thank you for helping Civil Engineers Lead the Way!

Timothy A. Byers
Major General, USAF
The Civil Engineer

Air Force Civil Engineers

The duty titles for the individuals pictured reflect their changing responsibilities, the development of the career field, and the transformation of the Air Force since 1944.

1944-1949	Director of Air Installations
1949-1954	Director of Installations
1954-1957	Assistant Chief of Staff, Installations
1957-1959	Director of Installations
1959-1975	Director of Civil Engineering
1975-1991	Director of Engineering and Services
1991 to present	The Civil Engineer

Sep 1944 – Jun 1948

Brig Gen Robert Kauch

Jun – Sep 1948,
May – Dec 1950,
Jan – Jun 1952

Maj Gen Colby M. Myers

Sep 1948 – Mar 1949

Maj Gen Grandison Gardner

Mar 1949 – May 1950

Maj Gen James B. Newman

Dec 1950 – Jan 1952

Lt Gen Patrick W. Timberlake

Jun 1952 – Jul 1957

Maj Gen Lee B. Washbourne

Jul 1957 – Jul 1963

Maj Gen Augustus M. Minton

Jul 1963 – May 1968

Maj Gen Robert H. Curtin

May 1968 – Dec 1971

Maj Gen Guy H. Goddard

Jan 1972 – Mar 1974

Maj Gen Maurice R. Reilly

Mar 1974 – Apr 1975

Maj Gen Billy J. McGarvey

Apr 1975 – Jun 1978

Maj Gen Robert C. Thompson

Jul 1978 – Aug 1982

Maj Gen William D. Gilbert

Aug 1982–Feb 1986

Maj Gen Clifton D. Wright, Jr.

Mar 1986–Feb 1989

Maj Gen George E. Ellis

1 Mar 1989–31 Jan 1992

Maj Gen Joseph A. Ahearn

1 Feb 1992–27 Oct 1992

Mr. Gary S. Flora

28 Oct 1992–21 Jul 1995

Maj Gen James E. McCarthy

22 Jul 1995–23 Jul 1999

Maj Gen Eugene A. Lupia

23 Jul 1999–16 May 2003

Maj Gen Earnest O. Robbins II

16 May 2003–23 Jun 2006

Maj Gen L. Dean Fox

23 Jun 2006–5 Jun 2009

Maj Gen Del Eulberg

5 Jun 2009–present

Maj Gen Timothy A. Byers

Deputy Air Force Civil Engineers

TITLES:

1963-1969
Associate Deputy Director for Construction

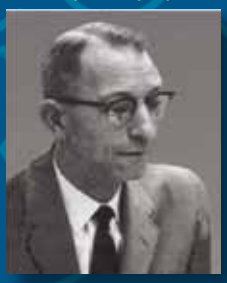
1969-1975
Associate Director of Civil Engineering

1975-1991
Associate Director of Engineering and Services

1991-1999
Associate Air Force Civil Engineer

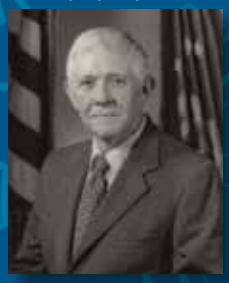
1999- Present
Deputy Air Force Civil Engineer

1963–1969



Mr. John R. Gibbens

1969–1972



Mr. Rufus (Davy) L. Crocket

1973–1985

Mr. Harry P. Rietman

1985–1994

Mr. Gary S. Flora

1994–1997

Dr. Robert D. Wolff

1999–2002

Mr. Michael A. Aimone

2002–2007

Ms. Kathleen I. Ferguson

2007–2010

Mr. Paul A. Parker

Nov 2010–present

Mr. Mark A. Correll

CE Chiefs for Enlisted Matters

Sep 1989–Jun 1992

CMSgt Larry R. Daniels

Mar 1994–Jul 1995

CMSgt Larry R. Ward

Aug 1995–Jul 1998

CMSgt Kenneth E. Miller

Aug 1998–Jun 2000

CMSgt Richard D. Park

Jun 2000–Jun 2005

CMSgt Michael Doris

Jun 2005–Feb 2008

CMSgt Wayne Quattrone II

Feb 2008–Aug 2011

CMSgt Patrick D. Abbott

Aug 2011–present

CMSgt Jerry W. Lewis

Civil Engineer LEADERS

Maj Gen Timothy A. Byers is the Civil Engineer, Headquarters U.S. Air Force, Washington, D.C. He is responsible for installation support functions at 166 Air Force bases worldwide with an annual budget of more than $12B, and for organizing, training and equipping the 60,000-person engineering force. His responsibilities also include planning, development, construction, maintenance, utilities and the environmental quality of Air Force bases valued at more than $251B, which includes services for housing, fire protection, aircraft crash and rescue, explosive ordnance disposal, and disaster preparedness. He oversees the Air Force Civil Engineer Center, with locations at JB San Antonio, Texas and Tyndall AFB, Fla.

Maj Gen Byers entered the Air Force in October 1981 as a distinguished graduate of the ROTC program at the University of Kentucky, with a degree in Civil Engineering. He has a Master's degree in engineering management from the Air Force Institute of Technology, Wright-Patterson AFB, Ohio. He has served as a design engineer, readiness officer, contract management chief, programmer, and environmental chief, with headquarters tours at both the Air Staff and major command levels, base command positions as a civil engineer squadron and mission support group commander, and a career broadening tour with Air Force ROTC.

Mr. Mark A. Correll, a member of the Senior Executive Service, is Deputy Civil Engineer, Headquarters U.S. Air Force, Washington, D.C., where he helps organize, train, and equip Air Force civil engineers for the development, construction, operation, maintenance, and environmental quality of Air Force bases worldwide.

Mr. Correll was commissioned in the Air Force in 1981 after graduation from the Air Force Academy with a degree in Civil Engineering. He has a Master's degree in engineering management from the Air Force Institute of Technology, Wright-Patterson AFB, Ohio. He was previously the Civil Engineer, Air Education and Training Command, Randolph AFB, Texas, where he provided functional leadership, direction, technical guidance, and support to civil engineer units at 13 bases. Mr. Correll commanded two civil engineer squadrons, a mission support group, and an air base wing. Mr. Correll retired from the Air Force as a colonel in 2010 and entered the Senior Executive Service. He is registered as a licensed professional engineer in the state of Texas.

CMSgt Jerry W. Lewis is the Chief of Enlisted Matters, Headquarters United States Air Force, Office of The Civil Engineer, Washington, D.C. He advises The Civil Engineer on matters affecting the Civil Engineering workforce with specific emphasis on readiness, morale, retention, training, and workforce utilization. He serves as the functional manager for all Civil Engineering enlisted and wage-grade civilians. He chairs the Air Force Civil Engineer Chiefs' and Airmen's Councils to review issues affecting the workforce, communicate ideas, and develop recommendations for senior leadership consideration.

CMSgt Lewis enlisted in the Air Force in December 1985 as a Carpenter Specialist. He has a diverse military background serving with RED HORSE, Civil Engineering, and major command organizations during assignments that included bases in Massachusetts, Colorado, Florida, and Hawaii, as well as Korea, Okinawa, and Germany. He has deployed in support of Operations Noble Anvil, Enduring Freedom, and Iraqi Freedom. In 1993, he was one of the Air Force's 12 Outstanding Airmen of the Year and in 2007, the winner of the Air Force Maj Gen Joseph A. Ahearn Enlisted Leadership Award.

Headquarters Air Force A7C Divisions

The Building Blocks for Ready Engineers, Great Leaders, and Sustainable Installations

The office of the Civil Engineer, Headquarters Air Force, reorganized on Oct. 1, 2012 (see organizational charts on following pages). FY12 accomplishments for the legacy divisions are reported below.

Asset Management and Operations Division (A7CA)

As the CE Strategic Plan Goal Champion for "Building Sustainable Installations," throughout FY12 the Asset Management and Operations Division (A7CA) was actively engaged in directly managing five transformational objectives designed to improve CE efficiency and effectiveness.

The Energy Management Branch (A7CAE) continued support to the Air Force efforts to conserve energy, increase energy development, and manage costs. The Air Force has been recognized as the top DOD service and top federal agency in energy intensity reduction. The Air Force is also the number two leader in the federal government in renewable energy use, exceeding the production goal by one percent. With A7CAE support, the Air Force is on track to meet the president's request for $260M in energy savings and performance contracts by December 2013.

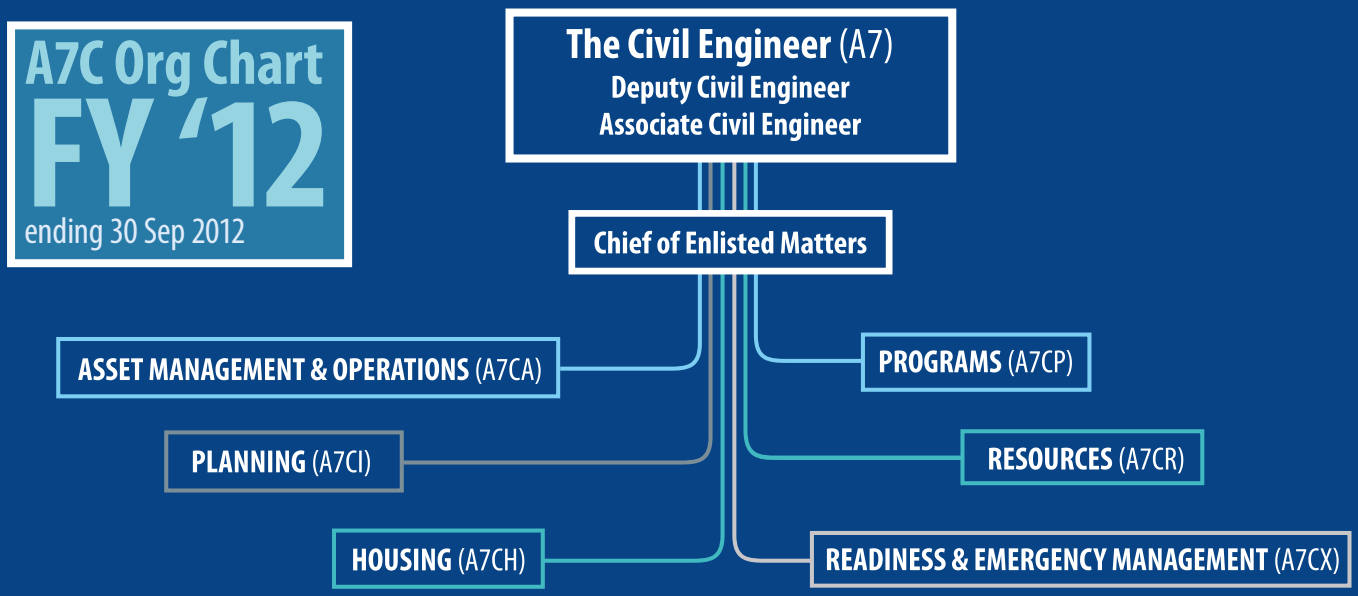
The Asset Accountability and Optimization Branch (A7CAI) continued efforts for accountability of Air Force's real property, supporting the DOD's Financial Improvement and Audit Readiness mandate to ensure the accuracy and completeness of real property asset records and supporting financial documentation. In FY12, the Air Force's real property includes nearly 140,000 assets and 10 million acres with a plant replacement value of $255B. The portfolio is currently maintained in the ACES-RP module, which will be one of the first authoritative databases to transition to NexGen IT. A7CAI also managed the Air Force Realty Program — the bedrock for developing major facility investment programs such as O&M, MILCON, and housing (valued at more than $10.4B). A7CAI helped build the FY13 Air Force Comprehensive Asset Management Plan (AFCAMP), which uses a "Mission Critical, Worst First" approach to investment in requirements and priorities in key areas, including R&M, large sustainment projects, demolition, P-341, environmental quality (EQ), housing contracted real property maintenance, and dormitory and energy focus funds. The branch also oversaw the 20/20 by 2020 initiative, which incorporated inventory optimization principles into investment planning processes and drove a reduction of 25.3 million square feet in excess inventory since FY06.

The Environmental Branch (A7CAN) made smart investments in Air Force natural infrastructure to maintain compliance, reduce risk, and continuously improve the mission and the environment. The end of FY12 saw the Air Force centralizing the EQ program at AFCEC's Environmental Center of Excellence, and transferring environmental responsibilities from MAJCOM staffs to AFCEC to create efficiencies and set the stage for centralized execution in FY13. The Environmental Restoration Program continued to realize savings in contract cost and completion time through performance-based restoration contracts, ensuring the Air Force meets DOD response-complete goals by 2018.

Housing Division (A7CH)

The Housing Division delivered a year of quality homes and housing support services to families and unaccompanied members, and improved the development and training of housing professionals worldwide. In April 2012, the division launched the Air Force Housing website at www.housing.af.mil, to help Airmen, spouses, and dependents become familiar with their new homes.

The Housing Program Development Branch (A7CHD) continued its focus on unaccompanied housing (UH) as a top quality of life issue, while supporting the DOD goal of having no more than 10 percent inadequate dorm rooms by FY17. In FY12, $447M in UH MILCON funding was awarded for student and permanent party dorm projects and $77.5M in O&M invested in 47 dorm focus fund (DFF) projects to improve 67 dormitories. A total of $42.5M in UH MILCON is programmed for FY13 for Air Force dorms and Army barracks at joint bases, and $25M in O&M DFFs is planned to improve dorms and serve as a "bridge" to MILCON. Housing community profiles were completed at installations in Japan and Germany.



The Housing Program Management Branch (A7CHM) assisted with the award of the Western Group housing privatization projects in March 2012 for 3,264 homes. Occupancy remained high, exceeding the target for the third consecutive quarter and resulting in the highest net operating income for the portfolio in six years. Annual resident satisfaction scores continued to increase, with the highest ratings received in six years. Work continued on final award of the Northern Group, Continental Group, and ACC Group III projects for FY13, and plans are being finalized for the Wright-Patterson AFB Phase II project.

Installations continued to benefit from MILCON and S/R&M funding to ensure homes and communities thrive through transition to privatization. In FY12, the family housing MILCON program awarded $56M to improve infrastructure and design on $80M worth of projects for FY13. The Air Force also funded more than 135 maintenance and repair projects worth more than $35M.

The Housing Operations Branch (A7CHO) also enhanced policies and processes related to family housing and furnishing management, including accountability, inventory management, and disposal procedures. The branch played an integral role in ensuring housing capabilities during manpower realignments and reductions and the transition to privatization, and in support of the CE Transformation. Nearly 600 students attended 24 housing courses at the Air Force Institute of Technology.

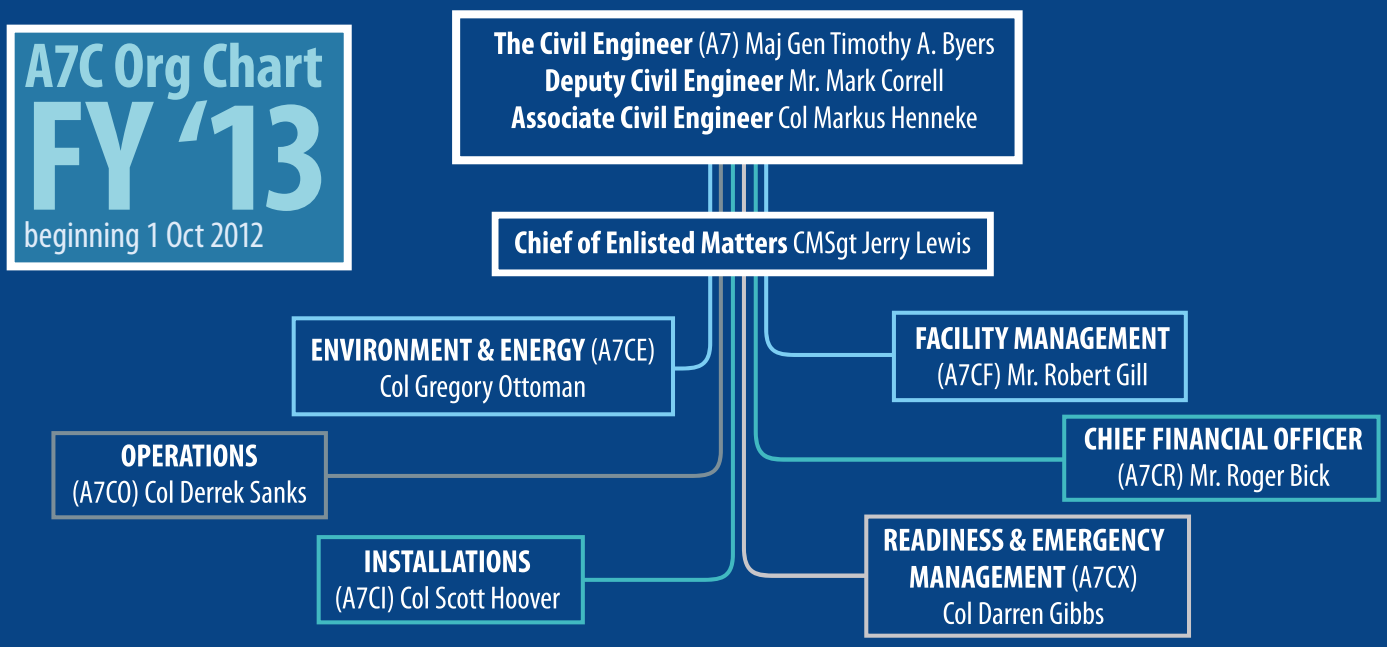
Planning Division (A7CI)

The Planning Division (A7CI) continued to support the initiatives and goals of the Office of the Civil Engineer in FY12. The Basing Branch (A7CIB) made significant advances toward Building Sustainable Installations through robust comprehensive planning efforts. The branch's effort to enable the Installation Governance Structure will streamline strategic intent and balance assets and goals for both built and natural environments through the Activity Management Plan (AMP) process. The results of this effort galvanized the stand-up of AFCEC's Planning and Integration Division and will enable centralized execution of certain accounts (i.e., MILCON, R&M, and EQ). It will also provide a forum for senior leadership to monitor and vector investments in our AFCAMP execution and Air Force AMP requirements to better inform the program objective memoranda, or POM.

The Installation Support and Strategy Branch (A7CIP), home of the Installation Support Panel (ISP), worked with Headquarters Air Force installation support integrated process teams, the agile combat support core function lead integrator at AFMC, and MAJCOM representatives to complete the FY13-17 budget request supporting the commander-in-chief's and DOD's strategy and priorities. Despite continued fiscal constraints, the ISP successfully advocated for resources to sustain installations, support CE readiness, and enable Air Force and combatant command core capabilities.

The Strategic Initiatives Branch (A7CIS) released Program Action Directive (PAD) 12-03 and the resulting programming plan (PPLAN) as part of accelerated CE Transformation (CET-A) efforts, effectively reorganizing many aspects of the enterprise to streamline CE activities for improved efficiency. The branch continues to build and update CE process playbooks that, for a given program or topic area, outline processes and centralize guidance, forms, policies, and templates in a single, easily accessible web-based tool that also captures feedback.

The A7CIS Strategic Communications team facilitated efforts to increase awareness and understanding of CET-A across the CE enterprise. Their comprehensive communications efforts included presentations, fact sheets, videos, direct correspondence, and webinars for distribution via in-person briefings, emails, the CE Portal, social media, and other channels, many of which included opportunities for valuable feedback.



Programs Division (A7CP)

The Programs Division continued to provide MILCON support on multiple fronts. The Policy and Analysis Branch (A7CPA), which includes the MILCON execution team, managed the FY12 program, consisting of 44 projects valued at $1.02B and nine emergency construction projects valued at $235.5M. An additional 14 projects (seven MILCON and seven for oversea contingency operations) funded prior to FY12 were also awarded at $338.5M. The branch accomplished design program oversight for completion of 52 FY12 project designs and design starts for 18 FY13 projects, 15 FY14 projects, and 10 FY15 projects. The branch oversaw construction completion of 15 BRAC MILCON projects for the active duty Air Force valued at $338.6M and the financial closure of 28 projects valued at $342M. A7CPA continues to monitor the 16 remaining projects under construction valued at $686.7M. Finally the branch aided in CET-A planning, including PAD 12-03 and PPLAN development.

The Programs and Policy Branch (A7CPO) managed $325.6M in demolition and consolidation focus funds and $81.2M in airfield focus fund projects dedicated to improving efficiencies, repairing airfield infrastructure, and reaching 20/20 by 2020 goals. The branch managed the first-ever centralization of the FY13 R&M and demolition programs, and a portion of the sustainment program, as well as the transition of these programs to AFCEC. A7CPO also processed 73 O&M facility repair projects, each totaling more than $5M, for approval by the deputy assistant secretary of the Air Force for installations, with an overall value of approximately $1.05B, and devoted numerous hours toward a rewrite of AFI 32-1032, Planning and Programming Appropriated Funded Maintenance, Repair and Construction Projects. The branch also advocated for, and programmed, $6.3B (55% of the ISP portfolio) in S/R&M, facilities operation, and command support funding for FY14 programs, and implemented $1.6B in O&M efficiencies.

The MILCON Requirements Branch (A7CPP) assisted in the development of a $441.6M MILCON request for FY13, including approximately $132M to modernize air and space inventories, organizations, and training; $60M to develop and care for Airmen and their families; $193M to partner with the joint and coalition team to win today's fight; $5M to continue to strengthen the nuclear enterprise; and $52M in planning/design and unspecified minor MILCON. The final budget submission strikes a balance between these competing interests and focuses support to our most critical missions. A7CPP orchestrated professional staff member presentations to gain critical review and support of the MILCON and Military Family Housing (MFH) construction programs submitted in the FY13 President's Budget. The congressional cell processed over 400 inquiries, provided critical support to senior leaders through multiple hearings with congressional committees, and led the congressional conference reconciliation to ensure positive results with the National Defense Authorization Act and appropriation legislation.

Resources Division (A7CR)

This year the Resources Division continued to support NexGen IT development while preparing for accelerated transformation-related changes. The Budget Branch (A7CRB) executed MFH, MILCON, and O&M programs while minimizing risk to the focus fund programs, completing two major acquisition efforts, emphasizing resource advisor development, and defining financial process changes associated with AFCEC's establishment. The branch strategically managed the focus funds account to ensure that the $300M earmarked for underwriting Air Force risk associated with the Omnibus Bill was distributed upon mid-August release to the MAJCOMs for execution. The branch's acquisition team completed two significant contracts, which provided staff and program support to headquarters and AFCEE and AFCESA. Finally, the branch focused on identifying roles and responsibilities associated with the flow of




funds to and through AFCEC while maintaining fiscal oversight of the CE Portfolio.

The Manpower Branch (A7CRM) provided oversight and utilization analysis on over 60,000 CE manpower billets across the Air Force. The branch provided critical data analysis support during Air Force management structure reviews, and provided support for various FOA teams working critical CE transformation efforts. A7CRM continued oversight on execution of the 1st Manpower Requirements Squadron's capability-based manpower studies across the CE career field. These studies are crucial to solidifying transformation efforts by aligning manpower with the fully transformed CE organization. A7CRM continues to partner with the 1st Manpower Requirements Squadron and the Air Force Manpower Agency to ensure manpower studies adequately address CE mission requirements. A7CRM also supported CE career field managers in advocating for force development, which garnered an invitation to participate in the Air Force Education Review Board's AFSO-21 event, resulting in improved identification and advocacy for professional continuing education and advanced academic degree requirements for CE civilian and military members.

The Information Technology Branch (A7CRT) had several important accomplishments in FY12. The NexGen IT solution underwent significant design and is expected to be fielded at Joint Base Andrews in late 2013. A7CRT completed requirements gathering for Capability Group 3. NexGen IT received two interim approvals for testing and approval of its information assurance strategy, which consists of 111 industrial control systems. The CE GeoBase Program has achieved noteworthy cost savings through the consolidation and standardization of Air Force geospatial IT, which will provide users with global availability to mission-essential geospatial data and services. Initial operating capability is scheduled for October 2013. A7CRT also managed the evaluation and release of the Advanced Meter Reading System (AMRS) Program, which will utilize software and meter telecommunications hardware to meet regulatory, sustainability, and DOD goals for monitoring energy utilization. A7CRT also focused on the systems engineering process to maintain the health of legacy IT systems, provide the foundation to complete certification and accreditation, and comply with federal, DOD, and Air Force regulations.

Readiness and Emergency Management Division (A7CX)

The Readiness and Emergency Management Division (A7CX) continued to lead the charge in "Building Ready Engineers," to enhance expeditionary and emergency response capabilities. Using a proactive management approach, A7CX tackles a range of critical issues from the high ops tempo stress of our expeditionary engineers to the Air Force top priority of strengthening the nuclear enterprise. A7CX is a key player on the DOD-led

Nuclear Weapons Accident Incident Response Subcommittee and in planning for the NUWAIX 13 nuclear response exercise.

The Emergency Services Branch (A7CXR) continued to work on several important efforts to enhance the Air Force's installation emergency management (IEM), fire and emergency services, and EOD programs. One of A7CXR's top priorities is the implementation of the recently signed DOD mission assurance strategy within the Air Force. The branch also developed an IEM strategic plan and a CBRN portfolio to provide the foundational platform to improve management of modernization efforts for emergency management and chemical, biological, radiological, and nuclear-related threat response. A7CXR continued support to the EOD career field, which is heavily engaged in combat operations in and around Afghanistan. The operational strain (2,800 missions since the beginning of 2012) made retention and recruitment of EOD Airmen a major 2012 focus area: the new preliminary school at Sheppard AFB, Texas stood up, leading to improvements in self elimination numbers and attrition rates. A7CXR is also placing significant focus on training to leverage the skills learned over the past decade of deployments and combat experience into the training life cycle. The branch continues to advocate for development and fielding of both the JFIRE II suits and the ultrahigh pressure technology on the new P-34 Rapid Intervention Vehicle.

The Expeditionary Engineering Branch (A7CXX), through close coordination with MAJCOM global force providers, has improved dwell ratios and increased time at home for CE Airmen. Through their efforts, institutional forces are at a 1:4 dwell, Reserve components at a 1:5 dwell, and operational forces are nearing the 1:2 dwell goal. The branch also led joint collaborative efforts to modernize the airfield damage repair capability and augment the "sustain the base" mission during hostilities. A7CXX made great strides in standardizing the RED HORSE force presentation model, which provides combatant commanders a clear and definable picture of RED HORSE capabilities. A7CXX worked with AFCESA and the LeMay Center to successfully codify CE bare base development; bare base assets; the emergency airfield lighting system; and RED HORSE capabilities in new publications. A7CXX devised new policy for Silver Flag training and M-4 weapons storage that has resulted in a more accurate presentation of CE readiness to leaders.

ACC

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Brig Gen Dave C. Howe
Director of Installations
and Mission Support

CMSgt Brian L. Mosier
Chief Enlisted Manager

COMMAND MISSION

Air Combat Command is the primary force provider for combat airpower to America's warfighting commands and is responsible for organizing, training and equipping combat-ready forces in support of national security strategy implementation. ACC operates more than 1,000 fighter, reconnaissance, battle-management, and electronic-combat aircraft. As the Combat Air Forces lead agent, ACC develops strategy, doctrine, concepts, tactics, and procedures for air- and space-power employment. It also provides command, control, communications and intelligence systems, and conducts global information operations.

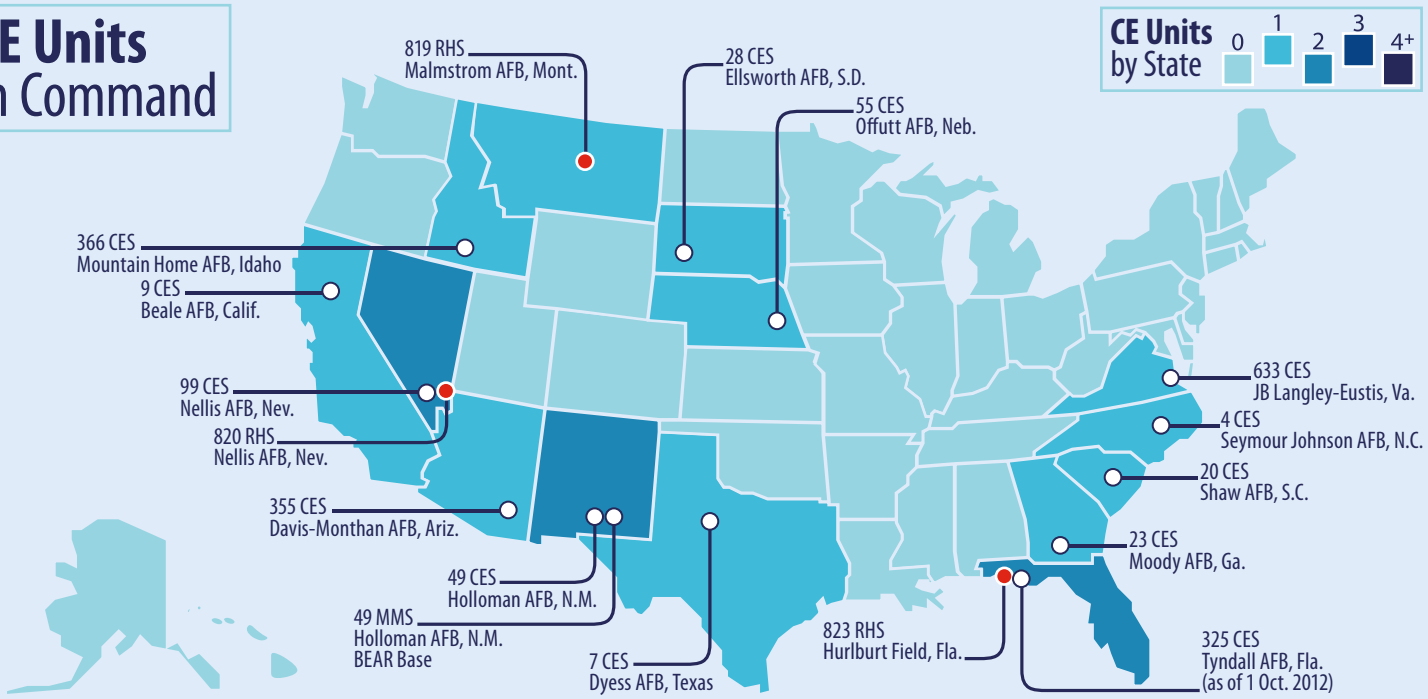
CE RESPONSIBILITIES

ACC A7 provides civil engineering, acquisition, security forces, and contracting support. It establishes policy, provides resources, and executes base development, design, construction, operation, asset management, dorm, housing, quality-of-life, contingency response, emergency services, base defense, force protection, nuclear security, law enforcement, contracting, and policy oversight at 22 wings, 13 major bases, and more than 300 worldwide locations. A7 develops and deploys mission-ready, motivated, trained, and resilient RED HORSE, Prime BEEF, EOD, Emergency Management, Fire, Security Forces, and Contracting Airmen. The directorate manages the Acquisition Management and Integration Center, responsible for strategic acquisition, integration, and management for ACC and other U.S. government agencies and allies.

SIGNIFICANT ACCOMPLISHMENTS

- Developed a $277M, 316-project investment plan to sustain, restore, and modernize ACC facilities and infrastructure.
- Continued Asset Management (AM) implementation by establishing a risk-based In-House Work Program, and trained more than 150 civil engineer personnel on asset-oriented and data-driven decision support.
- Conducted three command-wide infrastructure assessment team visits; identified more than 300 critical projects valued at $292M and prioritized funding using AM concepts.
- Developed, tested, and fielded a new process to prioritize ACC mission critical assets; the Prioritized Asset List breaks down facilities, buildings, communications nodes, and utilities assets into a four-tiered structure based on mission criticality.
- Southwest Asia Delivery Team programmed $45M 30-project unspecified minor military construction program for six different AOR bases.
- Conducted 26 site activation task forces for Air Force beddowns; programmed 20 new mission MILCON projects ($210M total) for FY14; programmed 60 new mission R&M projects ($33M total).
- Provided RED HORSE and Prime BEEF forces worldwide to meet engineer deployments for repair and construction efforts in addition to training local nationals, providing humanitarian assistance, and meeting national security/force protection objectives.
- Executed $11.2M for airfield damage repair (ADR) modernization, four additional pavement sustainment kits and ADR recovery training kits for each Silver Flag site.
- Led enterprise-wide effort to develop and socialize key performance indicators to support Air Force common output level standards for Fire Emergency Services.
- Developed the MetriX application to provide data visualization of ACES-PR for organization, training, and equipment requirements for expeditionary Prime BEEF and RED HORSE.
- Awarded $1.95M contract to inventory 8,600 real property installed equipment assets in more than 10,300K sq. ft. of facilities to improve maintenance scheduling and system reliability.
- Awarded a 14.5-megawatt photovoltaic solar array at Davis-Monthan AFB; expected to produce more than 35% of the base's power requirements, at a utility cost savings of greater than $500K annually.
- Accomplished more than $20M in energy and water conservation projects estimated to save about $4.4M annually.
- Managed renovation project for Counter-Narcotics Terrorism Program Office to ensure seamless program transition and continuation of this $6B mission.
- Partnered with AFCESA to expand Inspector General checklists for 3E5s-to create comprehensive Air Force standards for higher Airmen proficiency.
- Coordinated with GSA to sell government property, resulting in a four-year Asset Management and Integration Center gain of $1.1M.

CE Units in Command



Director of Installations & Mission Support (A7)
Dep. Dir. of Installations & Mission Support (A7-2)
Col Gary D. Chesley

Chief Enlisted Manager

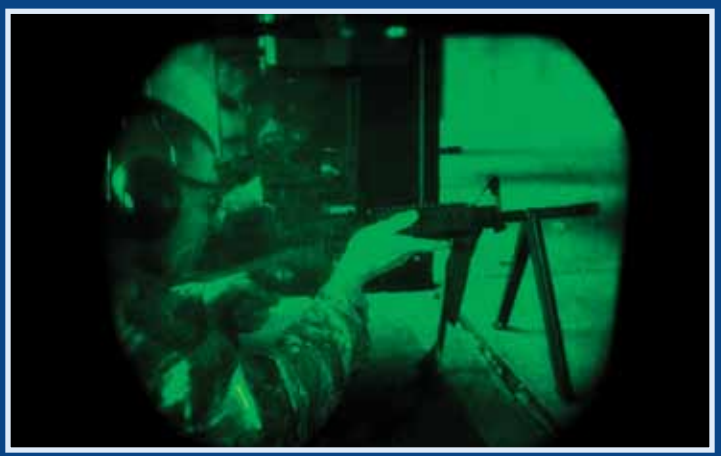
- **Asset Management** (A7A)
- **Operations** (A7O)
- **Resources** (A7R)
- **Readiness** (A7X)
- **Acquisition Management and Integration Center** (AMIC)
- **Contracting** (A7K)
- **Programs** (A7P)
- **Security Forces** (A7S)
- **Expeditionary Combat Support** (A7Z)

2012 Statistics

Major Bases	13
Plant Replacement Value	$30B
Buildings	73.9M sq. ft.
Airfield Pavement	24.4M sq. yd.
Housing	10,821 units (73% privatized)
Dorms	10,440 rooms

ACC Personnel		
	Active Duty & Civilian	79,000
	Reserve & Guard	51,000
CE Personnel		
	Active Duty	5,009
	Reserve	1,596
	Guard	4,511
	Civilian	2,187
	Contractor	2,069

MILCON	13 projects ($268M)
S/R&M-D	285 projects ($256.3K)
O&M Demolition	110 projects ($96.2M)



Amn Clayton Angleoff, a firefighter with the 20 CES, fires an M4A2 carbine during a combat arms training and maintenance course at Shaw AFB, S.C., Feb. 27, 2012.
(photo by SrA Neil Warner)

AETC

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Col David Martinson
Deputy Director of Logistics, Installations & Mission Support and the Civil Engineer

CMSgt Ronald Kruse
Chief Enlisted Manager

COMMAND MISSION

Develop America's Airmen today ... for tomorrow.

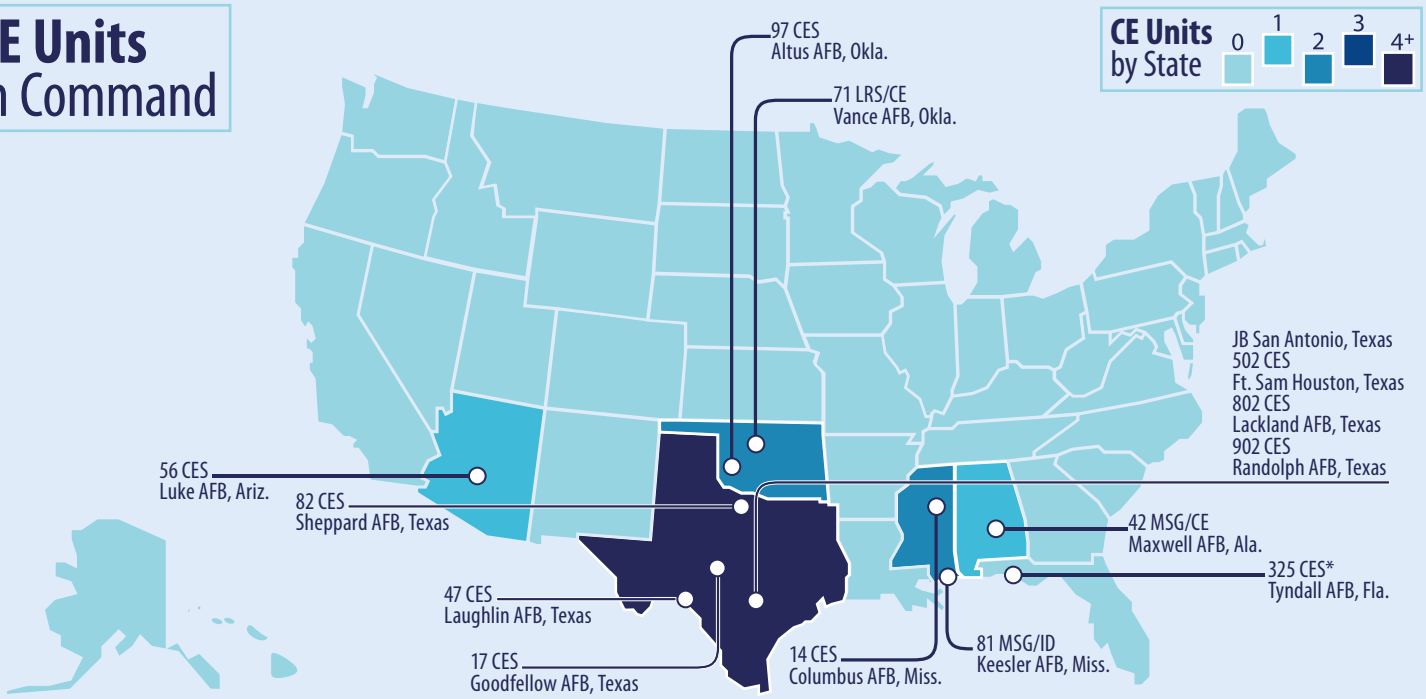
CE RESPONSIBILITIES

AETC CEs provide comprehensive land-use planning and complete design, construction, and maintenance management for every AETC installation facility. They plan and program MILCON, O&M, and energy projects and manage real property accounting and reporting. AETC/CE is responsible for the development, preparation, submittal, and maintenance of financial plans, budget estimates, and financial management systems for all AETC installations. AETC/CE provides living quarters for permanent-party and transient military members, students, and contractors. AETC/CE delivers world-class fire protection and prevention, public education, and other emergency response services and locates, identifies, and renders safe and neutralizes explosive hazards that threaten personnel and resources. AETC/CE trains, equips, and deploys Prime BEEF personnel to support global combat operations and recovery from natural disasters and major accidents.

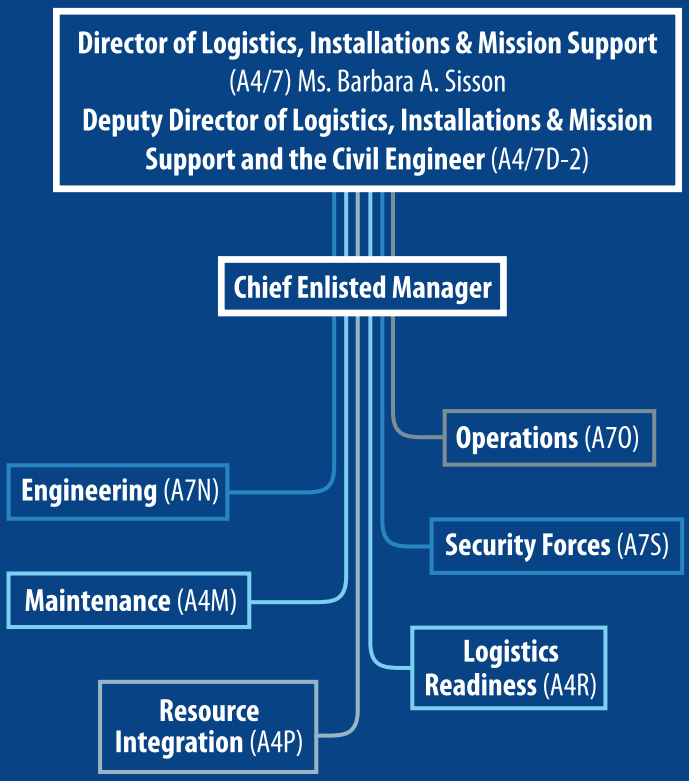
SIGNIFICANT ACCOMPLISHMENTS

- Secured $35M (35% of the Airfield Focus program) to repair AETC's worst airfield.
- Garnered $23M (23% of Dormitory Focus Funding) for the eight worst dormitories in the command; secured another $13M to renovate two critical Navy training dormitories.
- Secured $60M for 26 facility projects — despite a tight budget year — to correct AETC's high risk to personnel/mission.
- Completed several asset management optimization initiatives to improve data accuracy in IWIMS and ACES-RP, including capitalization gap analysis, real property installed equipment inventory, and bar coding of HVAC components in almost 1,000 buildings and fire suppression systems, backflow preventers, pumps, and generators.
- Developed the I-File analysis tool, integrating multi-source facility data to support investment strategies and business decisions for Air Force assets.
- Participated in development of Preventive Maintenance Playbook, and update of the Activity Management Plan Playbook.
- Consolidated GeoBase data storage and optimized GeoBase server footprint across the command, aligning AETC with Air Force GeoBase consolidation efforts and reducing program cost 30% (estimated $250K savings).
- Coordinated with Air Force Enterprise Sourcing Group and bases to identify airfield taxiway lighting requirement, obtain high efficiency LED taxiway lighting ($695K of LEDs save 940 MBTUs per year).
- Recommended high voltage distribution design to Sandia National Labs and Maxwell AFB, Ala., for the design and construction of microgrid, ensuring system is functional without central control and is compatible with plug-in electric vehicles test program.
- Awarded an Environmental Security Technology Certification Program (ESTCP) energy use estimating project at JB San Antonio, Texas; completed an ESTCP project at Goodfellow AFB, Texas, to determine energy savings through combining several renewable energy technologies. Solar electric, solar thermal, and rainwater harvesting systems installed on the 17th Security Forces building's roof are projected to save $11,748 energy expenses annually.
- Worked with AFCEE on development of Water Efficiency Worksheet for landscape water conservation selection and estimating; estimate $315K in annual savings (water and labor) at one installation.
- Completed water system inventory, condition assessment, GIS verifications, and hydraulic studies on potable water systems at seven bases; identified 110 million gallons of water leaks and annual savings in excess of $371K.
- Completed sustainable infrastructure assessments (including energy audits) at four locations (Sheppard, Keesler, Lackland and Maxwell AFBs); indentified more than 3,600 energy conservation opportunities with estimated annual savings of $2.47M, 121,000 MBTU energy, and 5.7 million gallons of water.
- Worked on award of 50-year contract to complete the privatization of the electrical utility system at Columbus AFB, Miss.
- Helped develop the Partnership and Outreach Energy Awareness Training Module (beta test site and live rollout on CE virtual learning center training Web site.

CE Units in Command



- Consulted with SAF/IEN during development of the Air Force Energy Awareness Training; reviewed story boards and content, collaborated with AFCESA to host the beta test of the computer based training (CBT). Testing completed and CBT "live" in 90-days.
- Developed Water Conservation Policy and Sustainable Landscape Development Tool that will help bases reduce water consumption 5-10% per year, with annual savings of $100K (in review for AETC/CC approval and issuance).



2012 Statistics

Major Bases	13*
Plant Replacement Value	$24.8B
Buildings	77M sq. ft.
Controlled Land	2.8 acres
Airfield Pavement	25.2M sq. yd.
Housing	6,500 units (100% privatized)
Dorms	18,684 rooms

AETC Personnel

Active Duty	37,222**
Reserve	1,556
Guard	4,890
Civilian	16,569
Contractor	12,024

CE Personnel

Active Duty	593
Reserve	36
Guard	293
Civilian	2,148
Contractor	1,919

MILCON	10 projects ($169M)
O&M	155 projects ($192M)***
Facilities Operation	$306.1M

**As of Oct. 1, 2012, AETC has 12 major bases: Tyndall AFB., transferred from AETC to ACC*
*** Does not include students*
****Includes dorm focus funds; S/R&M/storm; beddowns; energy; and design.*

AFGSC

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DSN 781-2608

Col Richard H. Houghton
The Civil Engineer and
Chief, Operations Division

CMSgt James W. Cupp
Chief Enlisted Manager

COMMAND MISSION

Develop and provide combat ready forces to conduct nuclear deterrence and global strike operations — safe, secure, and effective — to support the President of the United States and combatant commanders.

CE RESPONSIBILITIES

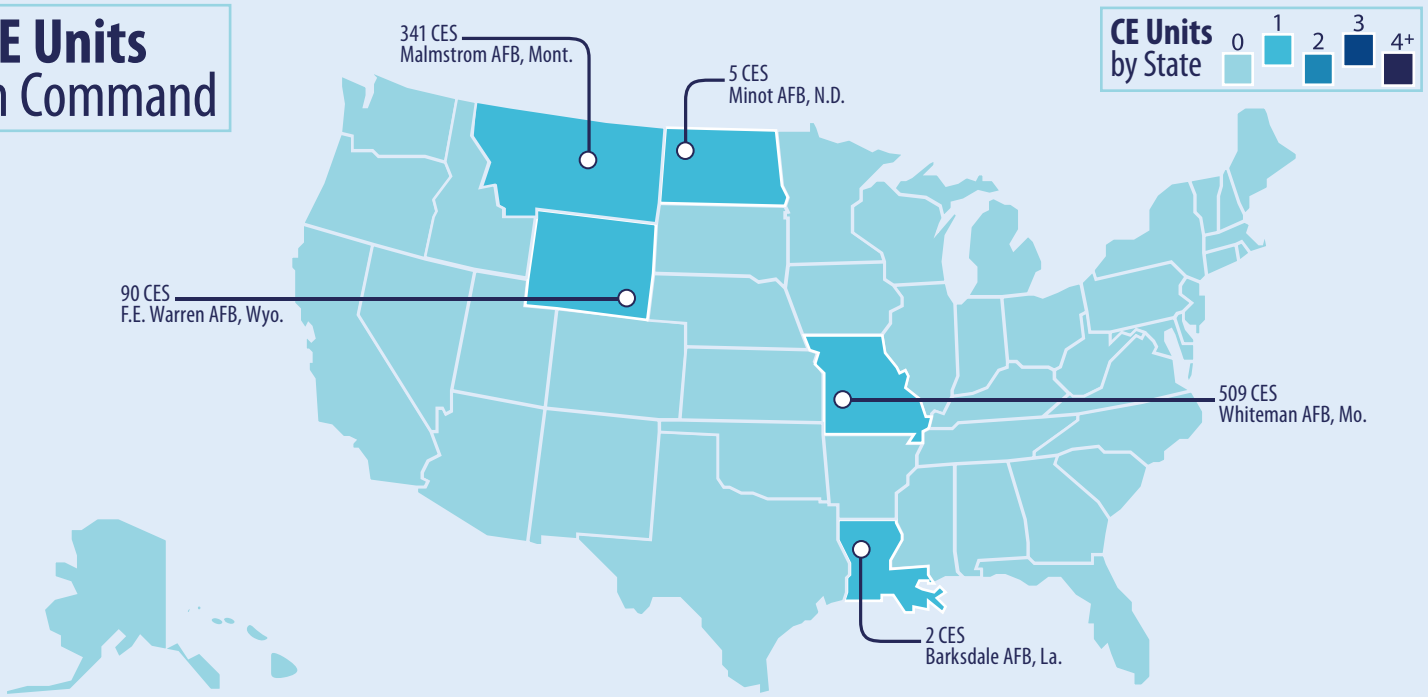
AFGSC engineers oversee planning, programming, policy, and financial oversight for the command's civil engineering programs: fire protection; EOD; emergency management operations; maintenance; repair; MILCON; infrastructure; environmental; housing; energy; manpower and training; technical support; and facilities S/R&M. AFGSC engineers also oversee the training, equipping, and deployment of Prime BEEF engineers in support of global contingency and combat operations.

SIGNIFICANT ACCOMPLISHMENTS

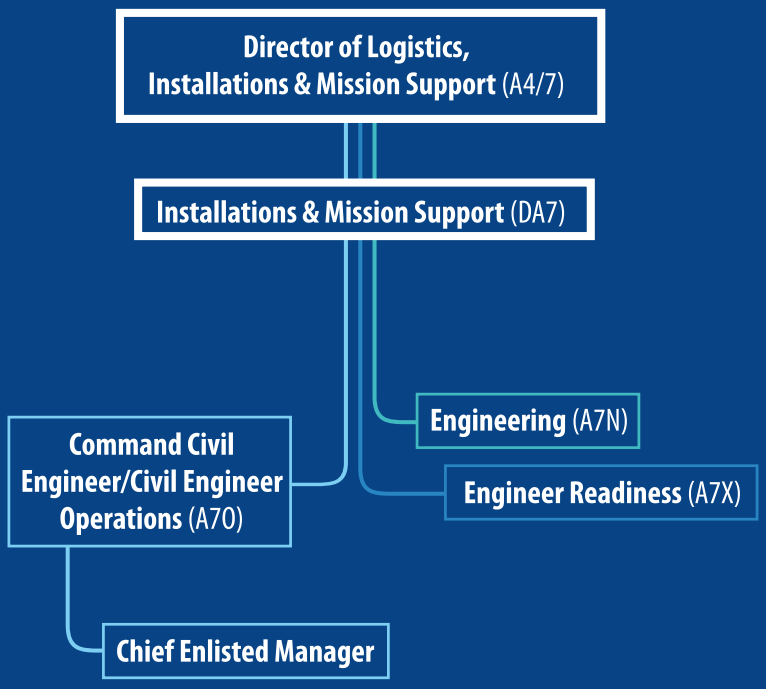
- Conducted DOD's first regional interagency response task force exercise (NUWAIX 12) at Minot AFB, N.D., resulting in new benchmarks for the command's incident action planning process and support-base integration of a nuclear response task force.
- Hosted the B-2 Live-Fire Trainer computer modeling testing at Whiteman AFB, Mo., to enhance fire response training and fire equipment testing using the new B-2 Fire Suppression Manifold.
- Garnered $1M in funding for high-fidelity EOD training systems, with devices that provide mock weapon training systems for the respective platforms of all EOD flights within AFGSC.
- Executed 31 energy projects worth $11.2M, which included replacing outdated HVAC control systems and boilers, replacing inefficient light fixtures, and painting hangar floors.
- Conducted AFGSC's first infrastructure assessments at F.E. Warren AFB, Wyo., and Malmstrom AFB, Mont.; identified and validated $31M in degraded and critical projects while earning the command IG's Superior Team Award.
- Completed closure of the Western Group Housing Privatization Project, transferring 2,755 housing units at Whiteman, F.E. Warren, and Malmstrom AFBs to privatized control.
- Continued execution of the $107M AFGSC beddown program, completing facility renovations and providing office space for 750 people (80% of AFGSC staff now in permanent buildings).
- Championed the 8th Air Force and 608th Air Operations Center facility collocation, which resulted in $2M in renovation savings and contributed 56,000 sq. ft. toward Barksdale AFB's 20/20 by 2020 reduction goals.
- Spearheaded first-ever Nuclear Certification of Essential Facility Systems to ensure safety, security, and reliability of Air Force nuclear assets.
- Completed Phase 1 of the $70M, three-phase, three-year repair program for Minot's runway (the worst in the Air Force) to restore a vital piece of pavement to the strategic mission.

SSgt Anthony Barrow and A1C Tevin Tolver, 2 CES structures, repair a vault door at Barksdale AFB, La. *(photo by SrA Kristin High)*

CE Units in Command



- Started design for demolition of ICBM silos to meet the requirements set by the New Strategic Arms Reduction Treaty.
- Garnered $20.2M for Barksdale demolition consolidation during the last 30 days of the fiscal year.
- Developed the Strategic Convey Oversight Utility Tracker; a real-time accurate, and intuitive Web-based tracking program for movement of strategic assets.
- Energized the enterprise-wide Encroachment Management Program; established monthly team meetings to actively work installation challenges, and completed one Installation Complex Encroachment Management Action Plan, or ICEMAP, with two more funded for FY13.



2012 Statistics

Major Bases	5
Plant Replacement Value	$31.1B
Buildings	37.5M sq. ft.
Airfield Pavement	7.6M sq. yd.
Housing	5,591 units (68.82% privatized)
Dorms	4,400 rooms

AFGSC Personnel	
Active Duty	19,485
Reserve	1,347
Guard	952
Civilian	2,672
CE Personnel	
Active Duty	1,316
Reserve	165
Guard	75
Civilian	634

MILCON	6 projects ($101M)
S/R&M	317 projects ($133.7M)
Facilities Operation	$57.2M

AFMC

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Mr. Terry Edwards
Director of Communications,
Installations and Mission Support

SMSgt Coben D. Scott
CE Functional Manager

COMMAND MISSION

Deliver war-winning technology, acquisition, test, sustainment, and expeditionary capabilities to the warfighter.

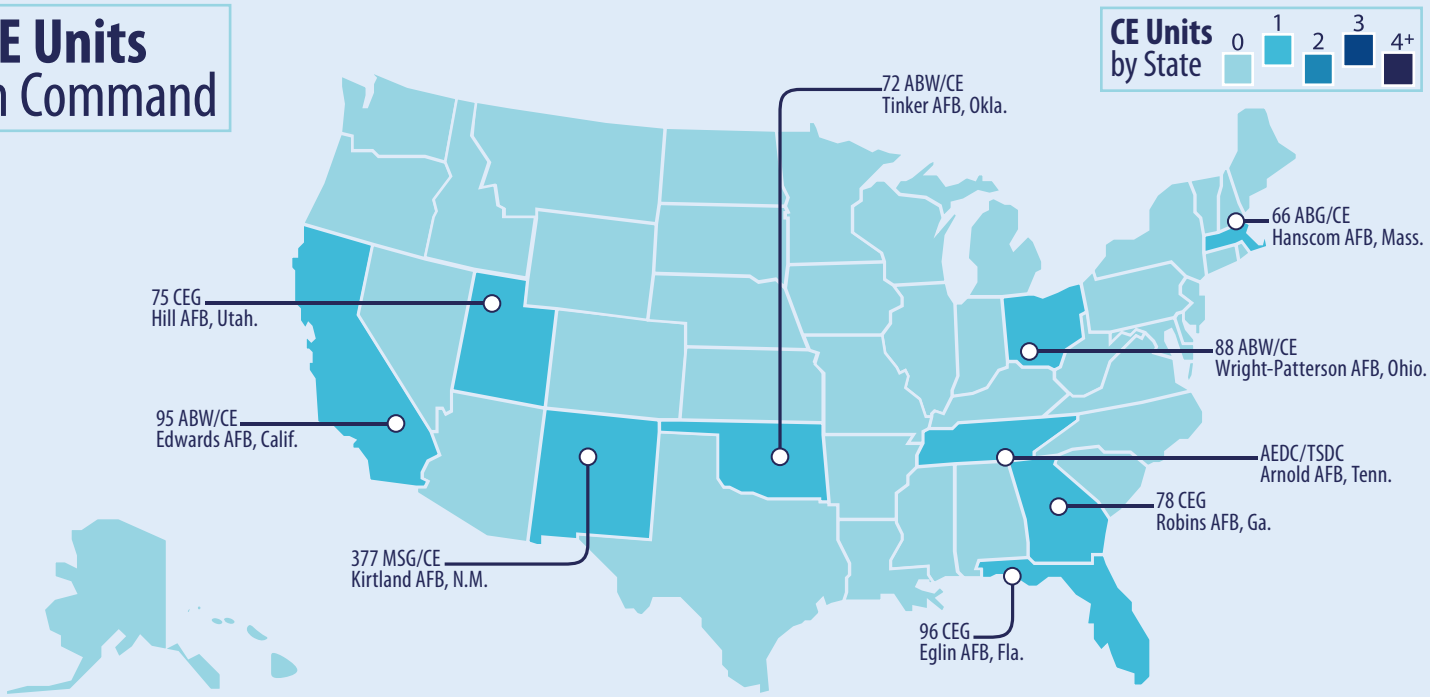
CE RESPONSIBILITIES

AFMC's engineers provide policy, guidance, and technical support for the command's physical plants, property operations, and emergency management services. They deliver on-target and responsive strategic facility and infrastructure programming, and execution oversight to sustain and enhance AFMC's real property assets. AFMC's engineers also provide resources to secure the command's operational, acquisition, and sustainment mission capabilities, and handling all aspects of the financial resources and manpower to support command installations.

SIGNIFICANT ACCOMPLISHMENTS

- Won five 2011 Air Force Civil Engineer Awards: Maj Gen Robert C. Thompson Award (Resources Flight), 96 CEG/CEA, Eglin AFB, Fla.; Brig Gen Archie S. Mayes Award (Programs Flight), 88 ABW/CEP, Wright-Patterson AFB, Ohio; Gen Thomas D. White Environmental Quality Award (Non-Industrial), 96 CEG/CEV, Eglin AFB; Gen Thomas D. White Environmental Restoration Award (Installation), 75 CEG/CEV, Hill AFB, Utah; and Gen Thomas D. White Sustainability Award (Industrial Installation), 75 CEG/CEV, Hill AFB.
- Garnered four of the 15 Air Force nominations for the 2012 Federal Energy and Water Management Awards.
- Won the 2012 Secretary of Defense Environmental Award, Environmental Restoration (Installation), 75 CEG, Hill AFB.
- Won the 2011 Air Force CMSgt Ralph E. Sanborn Fire Department of the Year Award (Large Base), 96 CES, Eglin AFB.
- Advanced SAF/IEN's Process Energy initiative and led cross-functional integration of energy mandates into A4's Depot Maintenance Operations.
- Conveyed the Tinker AFB, Okla., electrical distribution system to Oklahoma Gas and Electric, starting a 50-year utilities privatization contract valued at $70M.
- Funded $8.5M in S/R&M airfield pavements-related projects.
- Responded to 94 EOD missions and provided 18,203 man-hours supporting DOD's Very Important Persons Protection Support Activity.
- Provided 15,773 EOD man-hours in support of 437 test/range clearance missions and 2,256 man-hours for aircraft recovery missions.
- EOD sanitized 49,951 bombing range acres in support of 479 test/range/airfield damage repair clearance missions, providing 20,030 man-hours and destroying 35,800 ordnance items.
- EOD destroyed 63 large intercontinental ballistic missile motors in support of Strategic Arms Reduction Treaty II mandates.
- Assisted in Air Force-wide EOD unit type code (UTC) retrograde effort, which transfers 65 EOD equipment UTCs valued at $32M to Hill AFB, which a potential of $28M in total savings.
- Piloted transition of two new AFMC programs to A6/7 portfolio: Installation Exercise & Evaluation and Expeditionary Skills Training.
- Executed sustainable infrastructure assessments on 247M square feet of real property, worth more than $100M, at three major installations.
- Identified 13 new energy conservation opportunity contracts, an estimated $254M investment with a projected savings of 1,738K MBTUs.
- Built robust renewable energy program with four projects producing 2.4 MWs for $8M; nine more projects in development with a projected 11.7MW production potential.
- Expedited $1.6M in repairs on Edwards AFB, Calif., Hydrant Type III Fuel System to provide 1.4M gallons of JP-8 annually in support of operational test and evaluation flight missions.

CE Units in Command



Director of Communications, Installations & Mission Support (A6/7)
Deputy Director of Communications, Installations & Mission Support and Command Civil Engineer (DA6/7) Col Jeffrey M. Todd

- **CE Functional Manager**
  - **Capabilities Integration** (A6C)
  - **Plans & Policy** (A6X)
  - **Operations & Readiness** (A7O)
  - **Engineering & Management** (A7N)
  - **Security Forces** (A7S)
  - **Resources & Integration** (A6/7R)

2012 Statistics

Major Bases	9
Plant Replacement Value	$50.1B*
Buildings	138.2M sq. ft.
Airfield Pavement	23.9M sq. yd.
Housing	7,693 units (77% privatized)
Dorms	4,676 rooms

AFMC Personnel	
Active Duty	17,925
Reserve	667
Civilian	61,299
Contractor	19,423
CE Personnel	
Active Duty	379
Reserve	4
Civilian	3,447
Contractor	2,220

MILCON	2 projects; ($34.2M)
S/R&M	324 projects ($141M)
Facilities Operation	$336M

**includes All AFMC installations, GSUs, and Air Force plants.*

A team uses an excavator to demolish a 1960s-era hangar at Eglin AFB, Fla., to make room for an F-35 fuel cell maintenance hangar, scheduled for completion in 2013. *(photo by Maj Karen Roganov)*

AFRC

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Col Roy-Alan C. Agustin
Deputy Director of Installations & Mission Support and the Civil Engineer

CMSgt Patrick Ferrell
Chief Enlisted Manager

COMMAND MISSION

The Air Force Reserve Command's Mission is to Fly, Fight and Win ... in air, space and cyberspace.

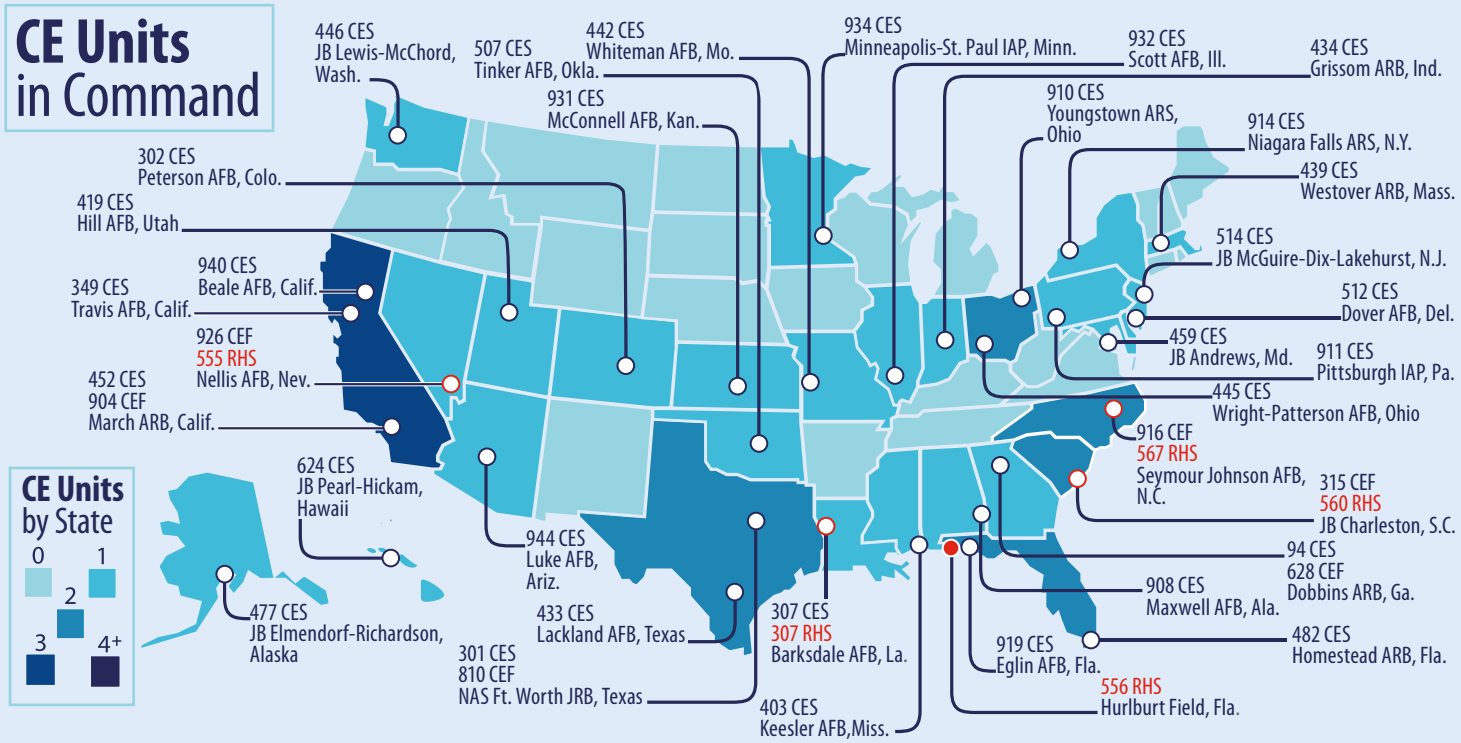
CE RESPONSIBILITIES

Civil engineers of HQ AFRC/A7 provide and direct command Civil Engineer programs and resources affecting over 75,833 AFRC personnel, and nine primary and 61 tenant locations with a $6.33B plant replacement value, $304M annual budget for operations, and an average annual MILCON execution of $58.2M over the past 10 years. HQ AFRC/A7 also organizes, trains, and equips 5,455 engineers at 42 units for worldwide contingencies.

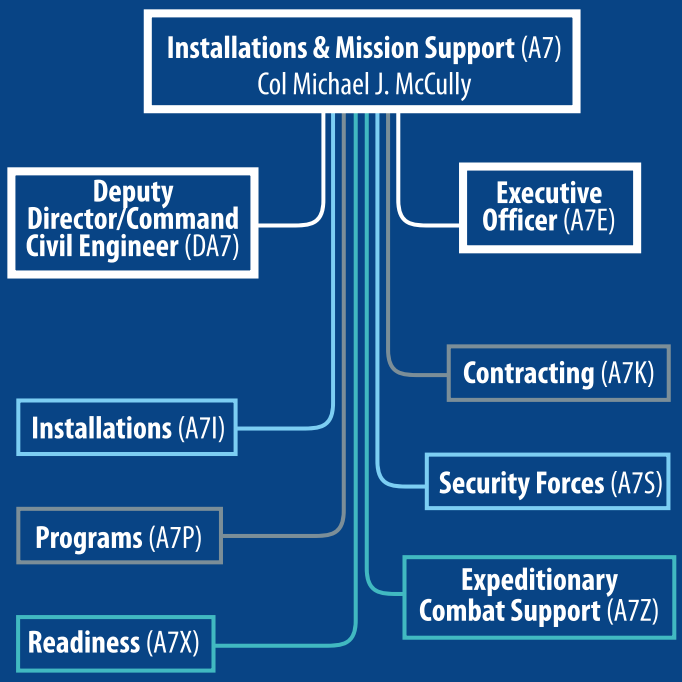
SIGNIFICANT ACCOMPLISHMENTS

- Awarded two current mission MILCON projects: $16.4M airfield control tower complex at March ARB, Calif., and $9.6M RED HORSE training facility at Charleston AFB, S.C.; completed construction on the $94.9M FY10 current mission MILCON program.
- Awarded 435 projects worth $182M of FY12 facilities S/R&M funds.
- Conducted 31 site surveys and site activation task forces in support of the Total Force Integration and mission realignments including EOD, RED HORSE, Security Forces, Intelligence, and Aircraft Maintenance units, as well as fighters, airlifters and field training units.
- Completed Facility Operations Capabilities and Utilization Surveys (FOCUS) at 11 AFRC operating locations — surveyed 372 facilities (3.7M sq. ft.), validated a space deficit of 158K sq. ft., and validated 351 projects and $1M of facility work orders (to date, FOCUS program has validated $3B in requirements to correct facility space, functionality, and condition deficiencies).
- Completed a 92K-sq. ft. temporary modular facility to relocate HQ AFRC members from an off-base location, in accordance with DOD antiterrorism/force protection guidance, to house approximately 400 personnel until completion of the planned HQ AFRC complex.
- Awarded the Homestead ARB, Fla., base operations support contract valued at $37M over a five-year period.
- Published the 2013 AFRC Facility Energy Policy, providing valuable energy action guidance to BCEs in support of facility energy use reduction goals.
- Decommissioned the Dobbins ARB, Ga., aircraft arresting system, saving $500K in annual operating costs.
- Successfully closed the Buckley AFB, Colo., annex and completed whole base transfer to the Lowry Redevelopment Authority, reducing AFRC's footprint by 637M sq. ft. and saving $7.26M in annual operating and maintenance costs.
- Achieved 100% implementation of eDASH (the Air Force Sharepoint and information repository site) for environmental programs.
- Stood up the 622 CEG, Det 2 at Dobbins ARB in preparation for 622 CEG activation on 1 Oct 12; the group (more than 1,353 personnel) will command all RED HORSE squadrons and Prime BEEF flights (Staff Augmentation) within AFRC.
- Deployed 330 personnel (Prime BEEF, Fire Emergency Services, Emergency Management, EOD, and IMAs) to locations in Southwest Asia in support of AEF taskings.

Airmen from the 910 CES, Youngstown ARS, Ohio, construct the roof of a new building for the station's training site on Nov. 14, 2012 *(photo by TSgt Brenda Cosola)*



- A total of 1,375 personnel completed more than $2.5M in readiness construction training projects at various locations, including Langley AFB, Va. (building and construction), and Riverside, Tenn. (school repairs, ball field and dugout construction).
- Total Force civil engineers (409 students) completed Expeditionary Combat Support Training and Certification Center mission essential equipment training courses and crane certification at the main campus and through the mobile training team.



2012 Statistics

Major Bases	5
Plant Replacement Value	$6.33B
Buildings	12.8M sq. ft.
Airfield Pavement	10.2M sq. yd.

AFRC Personnel	
Traditional Reserve	48,897
Air Reserve Technicians	10,867
Active Guard and Reserve	2,662
Individual Mobilization Augmentees	8,974
Active Duty	286
Civilian	4,147
CE Personnel	
Traditional Reserve	4,619
Air Reserve Technician	189
Active Guard Reserve	82
Individual Mobilization Augmentees	545
Active Duty	20
Civilian	797
Contractor	371

MILCON	2 projects ($26.0M)*
S/R&M	435 projects ($182M)
Facilities Operation	$97M

**Does not include $7.6M for P-341 and planning and design.*

AFSOC

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Col Van Fuller
Director of Installations
& Mission Support

CMSgt Michael T. Irons
CE Functional Manager

COMMAND MISSION

America's specialized air power ... a step ahead in a changing world, delivering special operations power anytime, anywhere. Air Force Special Operations Command provides Air Force special operations forces (SOF) for worldwide deployment and assignment to geographic combatant commands. The command's SOF are composed of highly trained, rapidly deployable Air Commandos, conducting global special operations missions ranging from precision application of firepower to infiltration, exfiltration, resupply, and refueling of SOF operational elements.

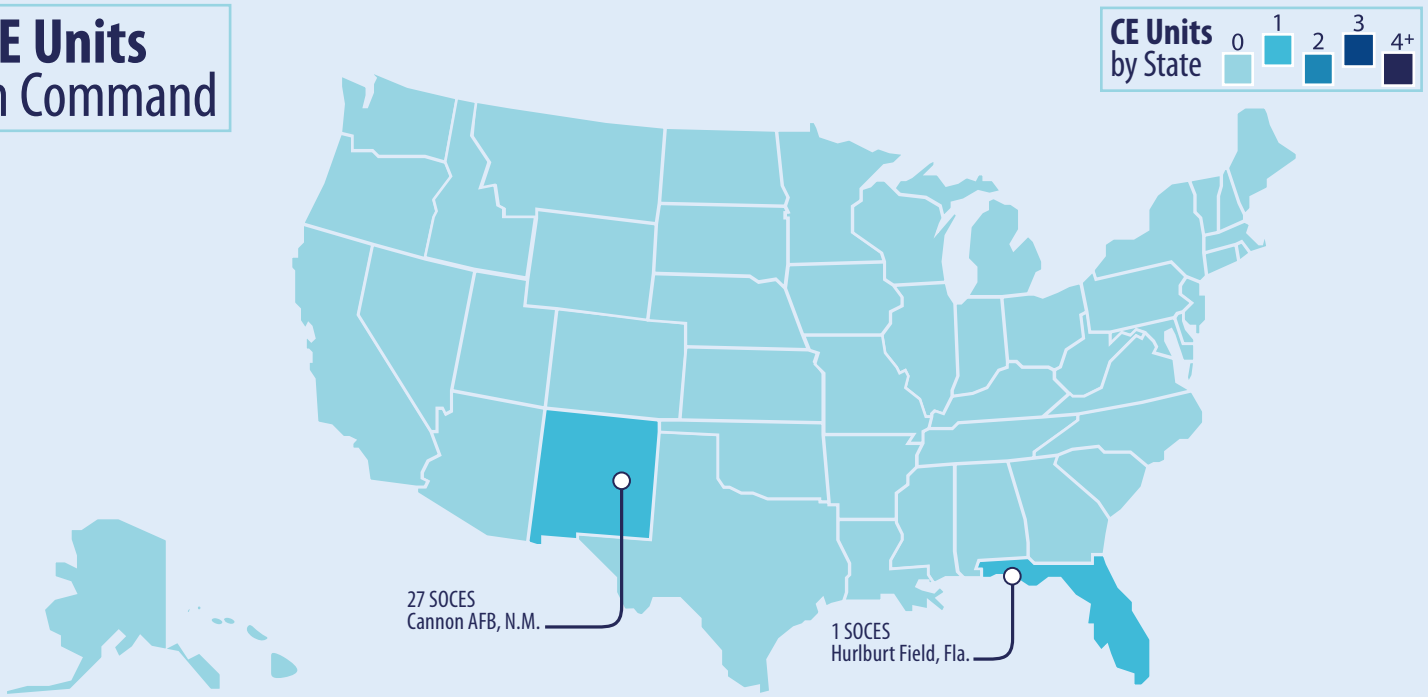
CE RESPONSIBILITIES

Plans, programs, resources, and manages civil engineer processes and resources enabling the air component of U.S. Special Operations Command (USSOCOM) to execute its mission. Executes $100M in annual appropriations, supports more than 15,000 special operations forces at 35 locations worldwide, and advises the AFSOC commander on base development and sustainment, emergency response, contracting, integrated defense, security, force protection, and expeditionary combat support. Provides specialized agile combat support by employing installation engineering, expeditionary engineering, readiness and emergency management, fire and emergency services, and EOD in garrison and at overseas contingency locations. To further enable USSOCOM elite forces mission, provides expeditionary beddown support for deployed personnel in contingency locations for up to 14 days using AFSOC-unique Air Rapid Response Kits, or ARRKs.

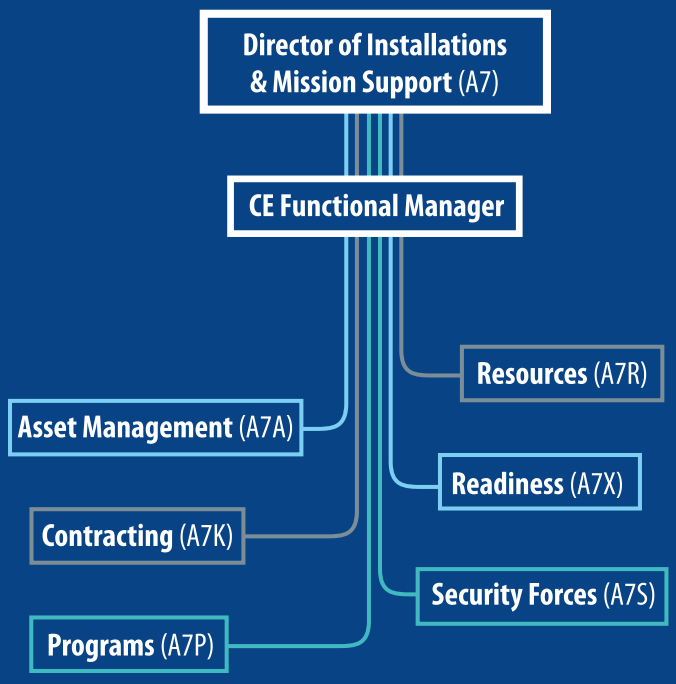
SIGNIFICANT ACCOMPLISHMENTS

- Deployed 145 engineers (19.9% of the total force), for 25,095 man-days to 18 locations in Southwest Asia, Africa, Central America and an uncounted number of other locations in direct support of USSOCOM and Air Force missions.
- Supported five AFPAK Hands Airmen in Afghanistan, fostering long-term relationships with the Afghan people, governments, and militaries.
- Provided expeditionary support to Exercises Jackal Stone and Emerald Warrior, the largest Special Operations Forces (SOF) exercises with participants from all services and more than 10 partner nations.
- Planned, programmed, and sustained $1.2B Cannon AFB, N.M. beddown (FY12 MILCON included $140.6M), initiating designs for a $22M 144-person dormitory, a $5.5M Airman and Family Readiness Center, a $6.6M satellite dining facility, and a $22M SOF airfield pavements project.
- Executed MILCON valued at $8.5M at Hurlburt Field, Fla., including a $3.1M SOF enclosed engine noise suppressor facility and a $5.4M simulator facility.
- Began design for $41.2M SOF aviation foreign internal defense O&M facilities at Duke Field, Fla.
- Programmed for $130.3M Future Years Defense Program (FYDP) investment at RAF Mildenhall, United Kingdom; started design for a $6.4M SOF CV-22 simulator facility.
- Programmed for $87.1M FYDP investment at Ft. Bragg, N.C.; started construction on a $5.4M SOF training facility.
- Executed $61.3M for 155 Air Force and SOF O&M facility projects, designs, and environmental studies.
- Executing $4.9M wastewater treatment plant upgrade at Hurlburt Field, incorporating re-use water into the base irrigation system; project is estimated to reduce annual potable water use by 93M gallons and save $382K.
- Managed $4.8M energy and water conservation program; oversaw 16 projects that produced estimated savings of $1.4M and 69,469 MBtus.
- Completed acquisition of 10,000-acre land gift at Melrose Air Force Range (AFR), N.M., enhancing special operations training for 55,000 SOF personnel; coordinated agreement with Roosevelt County Electric Cooperative to extend power lines approximately 12 miles onto range.
- Executed $2.1M in O&M facility projects and awarded three minor construction projects in support of joint military training at Melrose AFR.
- Developed near-real-time Excel "Report Card" that directly draws data from ACES-PM, providing current status of O&M projects for execution oversight.
- Documented more than 44,000 self-service transactions of GeoBase Web-enabled suite of tools, reports, and mapping products.
- Implemented installation Engineering Request System (ERS), enabling GeoBase customers to order engineering products online (printed or electronic) and track progress with a color-coded display and tracking number.

CE Units in Command



- Implemented command-centralized confined spaces tool for wing safety office to access, control, manage, display, and evaluate more than 1,800 confined spaces.
- Completed the AFSOC Water Sustainability and Management Report, which examined the hydrogeology makeup (included for the first time) at each base to guide future planning for water resources for the next 20 years and provided, for the first time, assessments of water supply options and timelines.



2012 Statistics

Major Bases	2
Plant Replacement Value	$5.1B
Buildings	9.5M sq. ft.
Airfield Pavement	2.4M sq. yd.
Housing	1,293 units (0% privatized)*
Dorms	1,686 rooms

AFSOC Personnel	
Active Duty	12,440
Reserve	15,500
Guard	1,490
Civilian	1,738
Contractor	1,214
CE Personnel	
Active Duty	487
Reserve	96
Guard	146
Civilian	264
Contractor	132

MILCON	7 Air Force projects ($53M) 27 SOF projects ($487.7M)
S/R&M	110 Air Force projects ($32.8M) 45 SOF projects ($28.6M)
Facilities Operation	$12.2M

**includes 150 leased units*

AFSPC

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DSN: 692-8178

Col Joseph H. Schwarz
Deputy Director for Installations and Mission Support and Command CE

CMSgt Michael A. Schreck
CE Functional Manager

COMMAND MISSION

Provide resilient and cost-effective space and cyberspace capabilities for the joint force and the nation.

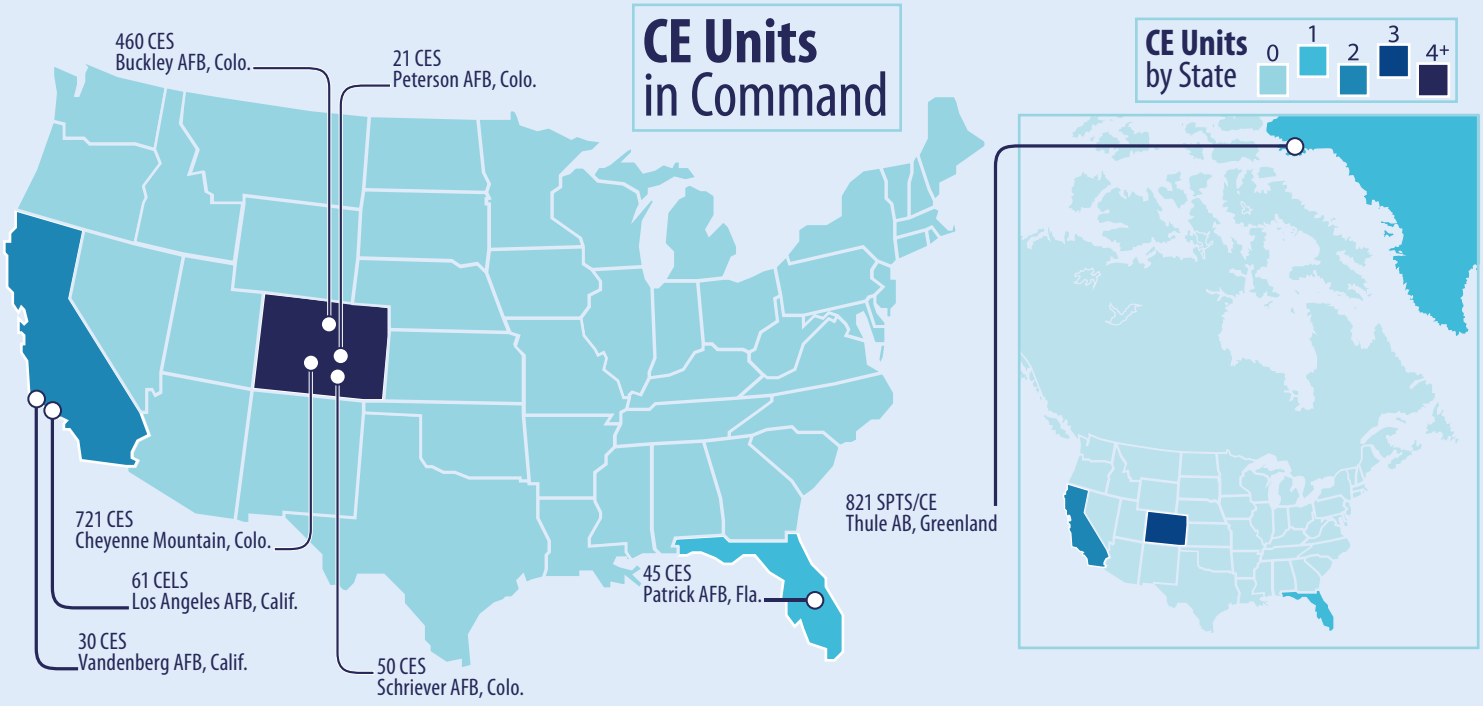
CE RESPONSIBILITIES

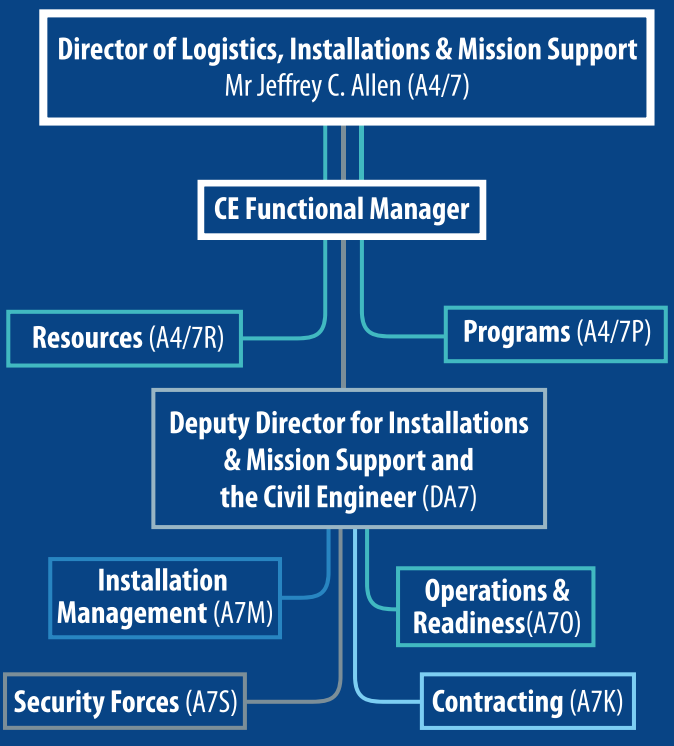
Space Command's A4/7 Directorate provides policy, guidance, resource, and oversight to design, construct, renovate, operate, sustain, and repair facilities and infrastructure to support the command's space and cyberspace missions and capabilities.

SIGNIFICANT ACCOMPLISHMENTS

- Continued command's space optimization efforts by developing a consolidation strategy for Buildings 1840 and 1844 at Peterson AFB, Colo.; executed a $5.6M construction contract consolidating an ESC/HSI into building 1844 and moving the 561 Network Operations Squadron (and associated units) into building 1844, avoiding a $40M MILCON requirement.
- Constructed 182 new units, renovated 210 units, and demolished 90 units totaling $41M at three AFSPC installations (Los Angeles and Vandenberg AFBs in California, and Peterson AFB).
- Re-invigorated the Joint Installation Regional Support Group (JIRSG), with Civil Engineering and Contracting members from Fort Carson, U.S. Air Force Academy, and Buckley, Peterson, and Schriever AFBs in Colorado and F.E Warren AFB, Wyo., to evaluate possible strategic sourcing opportunities for engineering requirements along the front range of the Rocky Mountains.
- Strategically sourced LED street and parking lot fixtures for 15 installations (CONUS and OCONUS); savings include an estimated 50% annual energy reduction with payback in five years.
- Fire Emergency Services responded during the Colorado Springs Waldo Canyon fire with 171 firefighters and 34 apparatus (including deployment of the Vandenberg Hot Shots) — 17 mutual aid requests were supported, with six mutual support requests encompassing 144 hours of direct firefighting operations; firefighters supported direct firefighting efforts on the Waldo Fire and 85 emergency calls in Colorado Springs.
- Executed $161.5M facilities S/R&M-D program, delivering more than 498 projects to reduce facility and infrastructure risks, enable mission, and improve quality of life for Airmen and families.
- The demolition/consolidation program awarded 80 demolition projects valued at $13.2M, to demolish 217K sq. ft.; awarded three consolidation projects valued at $7.7M that will provide for future demolition.
- Thule AB funded two consolidation projects totaling $6.7M; one project will save 25K gallons of heating fuel annually and allows a later project to save 80K gallons annually; a second project for demolition reduced the base's footprint by 4% (0.1M sq. ft.).
- Won 2011 Air Force Community Planner of the Year Award (Ms. Janie Brady, 460 CES, Buckley AFB).
- Won two Air Force General Thomas D. White Awards: Cultural Resources Management (30 CES, Vandenberg AFB) and Natural Resources Management (30 CES, Vandenberg AFB).
- Winner of the AFSPC Facilities Excellence Recognition Program, GSU category, Thule AB.

Gen William Shelton, AFSPC Commander, greets members of the Vandenberg Hot Shots firefighting team as they arrive at Peterson AFB, Colo., June 27, 2012, to aid in fighting the Waldo Canyon wildland fire *(photo by Mr. Duncan Wood)*





2012 Statistics

Major Bases	7
Launch Ranges	2
Stations	10
Plant Replacement Value	$38B
Buildings	22M sq. ft.
Airfield Pavement	4.1M sq. yd.
Housing	3,472 units (99% privatized)
Dorms	2,733 rooms

AFSPC Personnel

Active Duty	13,700
Reserve/Guard	8,800
Civilians	10,000
Contractors	10,200

CE Personnel

Active Duty	841
Reserve/Guard	423
Civilians	1,352
Contractors	1,634

MILCON	8 projects ($106M)
S/R&M	498 projects ($162M)
Facilities Operation	$187M

Vandenberg AFB Hot Shot firefighter Richard Strange looks out at his worksite for the day on June 28, 2012 in the Mount Saint Francis area of Colorado Springs, Colo., while helping battle several fires in Waldo Canyon. *(photo by MSgt Jeremy Lock)*

AMC

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DSN 779-0738

Brig Gen Timothy S. Green
Director of Installations
and Mission Support

CMSgt Darryl D. Duffy
CE Command Functional Manager

COMMAND MISSION

To provide airlift, air refueling, special air mission, and aeromedical evacuation for U.S. forces. AMC also supplies forces to theater commands to support wartime tasking. As the Air Force component of the United States Transportation Command, AMC is the single manager for air mobility.

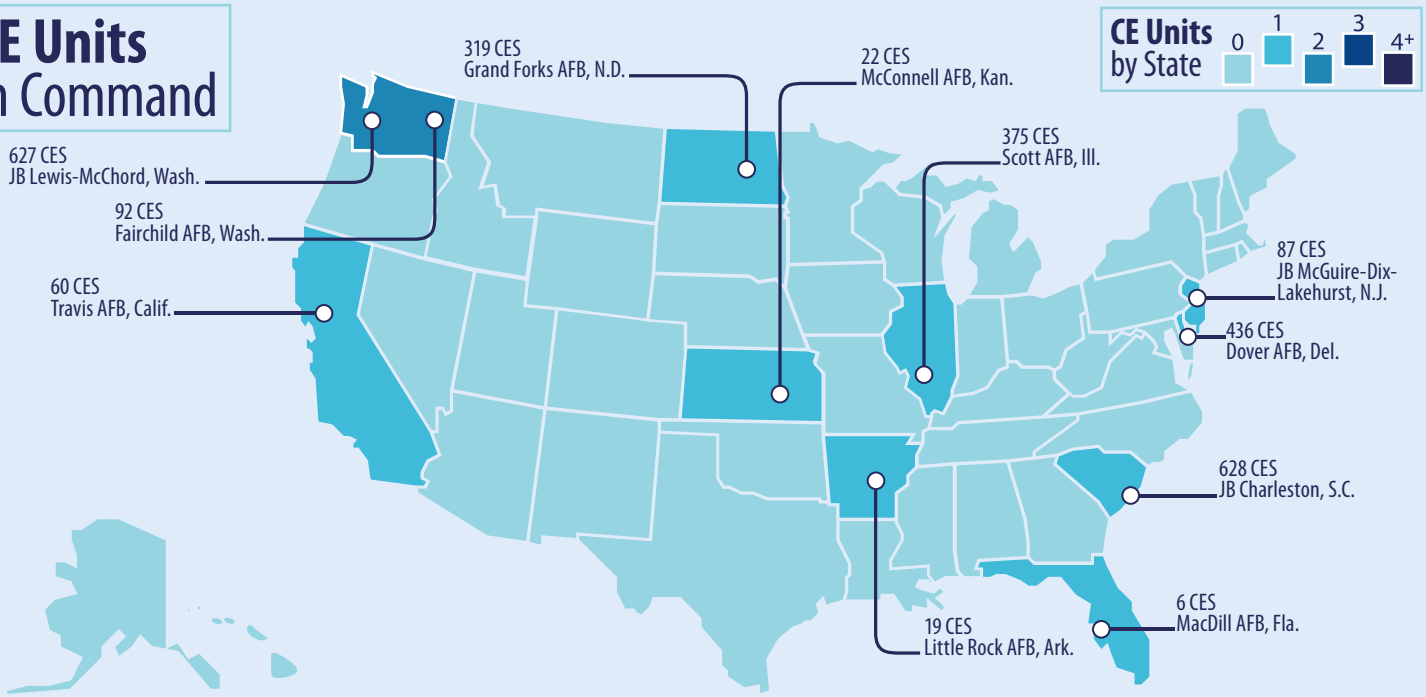
CE RESPONSIBILITIES

Lead AMC's expeditionary combat support and garrison mission support group activities, including Civil Engineering, Contracting, and Security Forces. Provide AMC's air mobility wings resources and oversight of emergency services, base development, security operations, antiterrorism, force protection, housing, quality of life, acquisitions, and installation excellence programs at 24 CONUS and overseas en route sites.

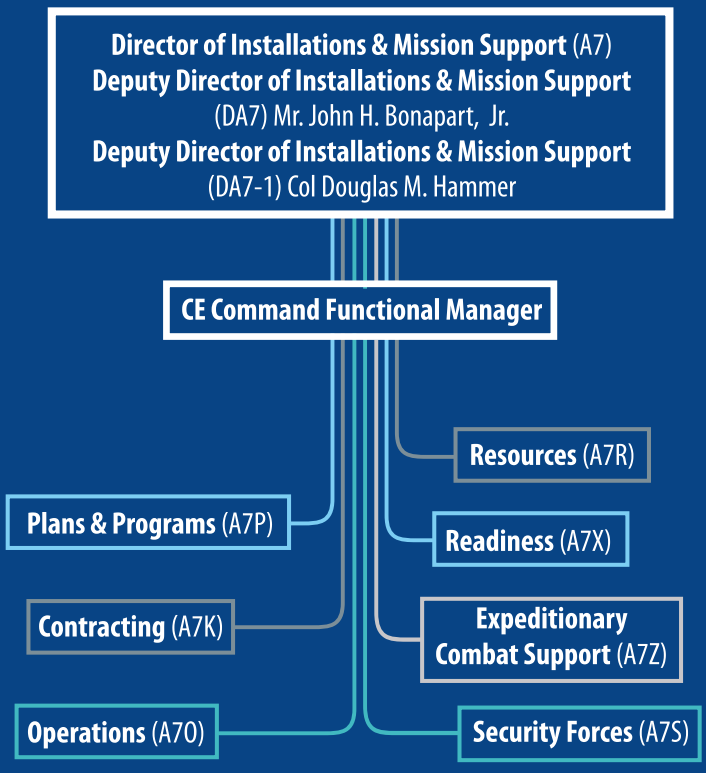
SIGNIFICANT ACCOMPLISHMENTS

- Deployed 334 Prime BEEF, 119 Fire Emergency Services, 56 EOD, and 13 Emergency Management active duty Airmen, and mobilized 612 AMC-gained Air Reserve Component Airmen in support of overseas contingency operations.
- Built FY12 MAJCOM Comprehensive Asset Management (AM) Plan under AMC's cross-functional AM Integrated Working Group; prioritized and obtained AMC/CV and wing/CC approval of 182 S/R&M centralized requirements totaling $324M ($5M+ in sustainment) and prioritized 187 ($164M) sustainment requirements under $5M.
- Restored 93% of the tornado-damaged housing units at Little Rock AFB, Ark.; 254 units renovated, 19 units demolished, and construction in progress on remaining seven new units and six renovations (SAF/IEI approved reduction of end-state housing units from 1,000 to 993).
- Executed $2M year-end Military Family Housing funds for three McConnell AFB, Kan., projects, to repair failing systems and demolish surplus units until privatization in FY13.
- Continued to implement AMC's space optimization initiative by analyzing space utilization data for 23M+ sq. ft. (980 buildings); enabled the execution of a robust FY12 base demolition/consolidation program (1.5M sq. ft.) with more than $41M in demolition (100+ buildings) and $28M in consolidation.
- Executed $97M in projects for Air Force Focus Funds supporting programs for demolition ($69M), energy ($20M), dorms ($6M), and airfields ($2M).
- Oversaw $51M in FY12/13 Transportation Working Capital Fund projects across 18 bases, including $20M supporting 13 global en route system locations worldwide.
- Partnered with the Federal Transit Authority and the State of Washington's Department of Transportation on an environmental impact statement to support the transfer of property at the Mukilteo tank farm to the Port of Everett and the National Oceanic and Atmospheric Administration.
- Completed five Installation Development Environmental Assessments, or IDEAs, which provide a fence-to-fence environmental impact analysis process assessment of installation development plans.
- Conducted Integrated Base Emergency Response Capabilities Training, an Air Force-only, command-level training event in which 71 emergency responders (firefighters, emergency managers and bio-environmental engineers) refined response tactics, techniques, and procedures.
- EOD conducted 124 Very Important Persons Protection Support Activity missions (19,089 man-hours), performed 272 EOD missions, and cleared more than 10,000 acres of bombing ranges.
- Responded to 8,745 Fire Emergency Service-related events, including 176 fires, 1,453 medical services calls, and 1,421 aircraft, hazardous materials, wild land, and public service calls.
- Purchased $1.6M in structural firefighting apparatus, $120K in hazardous materials Level-A suits, and mobile air compressors.
- DOD selected AMC's MSgt Mark Cornell as the Military Fire Officer of the Year.
- Participated in rewrite of the Air Force Institute of Technology Fire Emergency Services Flight Chief Course and AMC Instruction 11-208, Tanker Airlift Operations.
- Supported execution of sustainable infrastructure assessments, including audits for energy, space, infrastructure, and sustainability, covering 24.5M sq. ft. at JB McGuire-Dix-Lakehurst, N.J., JB Charleston, S.C., Travis AFB, Calif., and Scott AFB, Ill.

CE Units in Command



- Implemented a command-wide energy management policy, including actions for base leadership, facility managers, and all Airmen, to assist creating an Air Force culture where energy is a consideration in all we do.
- Managed the command's long-term runway construction program with projects completed at JB McGuire-Dix-Lakehurst ($54M) and Fairchild AFB, Wash. ($44M); projects under construction at Travis AFB ($64M), JB Charleston ($43M), and McConnell AFB ($47M); and projects in design for Little Rock AFB and Dover AFB, Del.
- Funded $825K of initial/replacement furnishings for new/renovated dormitories at Little Rock and Fairchild AFBs.



2012 Statistics

Major Bases	10
Plant Replacement Value	$45.7B
Buildings	72M sq. ft.
Airfield Pavement	28M sq. yd.
Housing	9,446 units (90.6% privatized)
Dorms	11,245 rooms*

AMC Personnel	
Active Duty	45,744
Reserve	44,856
Guard	34,787
Civilian	9,030
CE personnel	
Active Duty	2,175
Reserve	2,562
Guard	3,729
Civilian	1,725

MILCON	7 projects ($82.3M)
S/R&M	433 projects ($267M)
TWCF	86 projects ($43.1M)
Facilities Operation	$237M

*Includes Air Force, Army, and Navy dorms at JB McGuire-Dix-Lakehurst and JB Charleston and Air Force dorms at JB Lewis-McChord and and Pope AFB, N.C.)

ANG

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Col Peter A. Sartori
Director of Installations
& Mission Support

CMSgt Daniel Eakman
Chief Enlisted Advisor

COMMAND MISSION

The Air National Guard Readiness Center develops, manages, and directs Air National Guard programs that implement national level policies set by the Department of Defense, the Air Force, and the National Guard Bureau (NGB). It also performs operational and technical functions to ensure combat readiness of ANG units and is a channel of communications between the NGB and the states on ANG operational activities.

SIGNIFICANT ACCOMPLISHMENTS

- Deployed more than 1,150 engineers for Operations Enduring Freedom, Iraqi Freedom, New Dawn, and more than 2,800 for training in CONUS and OCONUS.
- Received four Air Force Design Awards: two merit awards and two citation awards.
- Established Deployments for Training in Norway, Germany, and Bosnia.

SSgt Robert Parrish, 153 CES, Wyoming Air National Guard, works on a roof snow break installation project as part of annual training. *(photo by SSgt Natalie Stanley)*

2012 Statistics

Major Bases	84
Plant Replacement Value	$15.4B
Buildings	49.9M sq. ft.
Airfield Pavement	14.8M sq. yd.

NGB Personnel

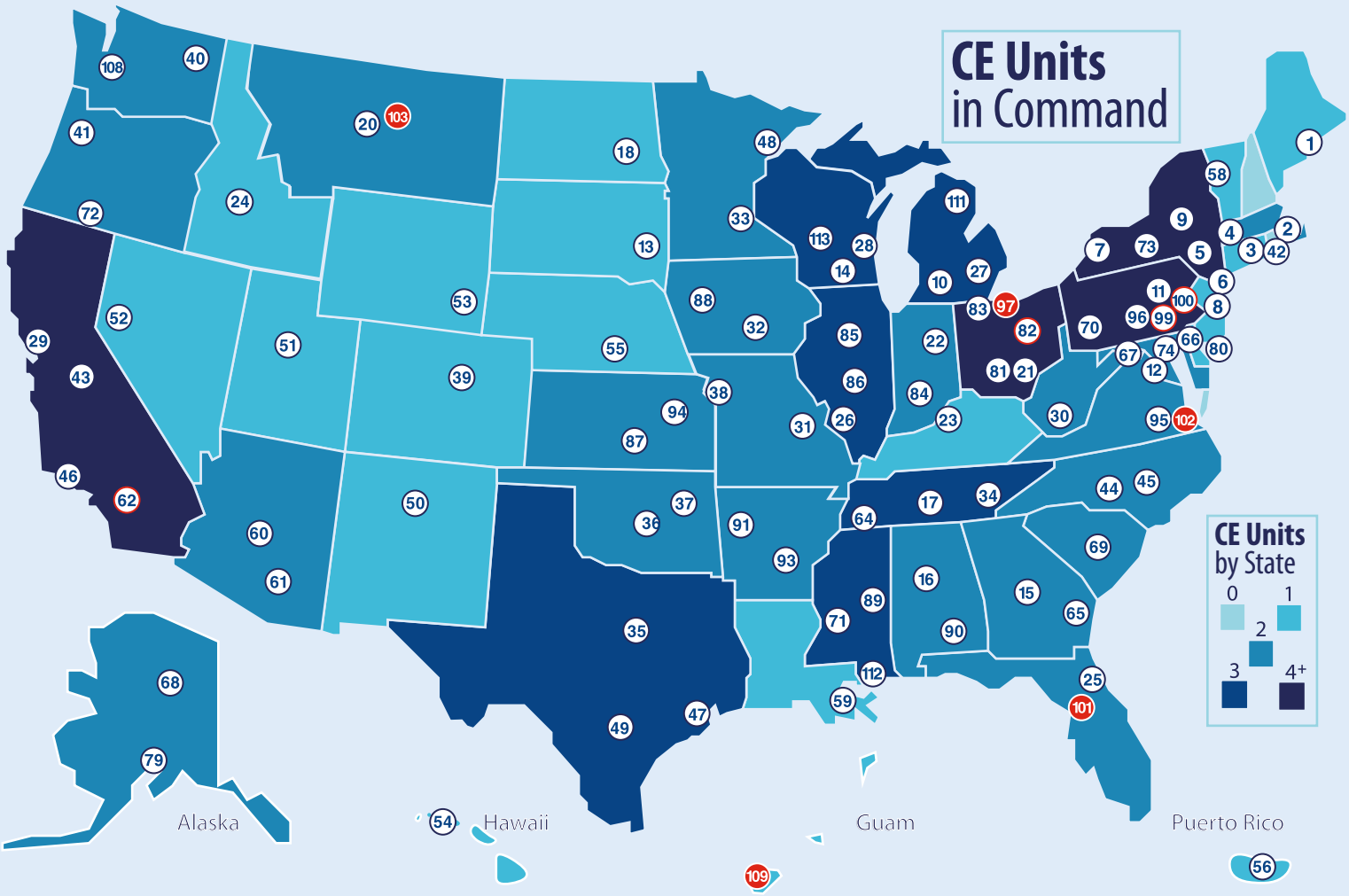
Active Guard Reserve	14,090
Drill Status Guard	95,056*
Technician	22,600
Civilian	1,252

CE Personnel**

Active Guard Reserve	382
Drill Status Guard	8,516*
Technician	693
Civilian	181

MILCON	6 projects ($78.3M)
S/R&M	248 projects ($325.9M)
Facilities Operation	$272.3M

**Drill status guard total includes technicians*
***Total numbers include Fire Protection*



1 101 CES
Bangor ANGB, Maine
2 102 CES
Otis ANGB, Mass.
3 103 CES
Bradley IAP, Conn.
4 104 CES
Westfield, Mass.
5 105 CES
Newburgh, N.Y.
6 106 CES
Westhampton Beach, N.Y.
7 107 CES
Niagara Falls, N.Y.
8 108 CES
JB McGuire-Dix-
Lakehurst, N.J.
9 109 CES
Schenectady County
AP, N.Y.
10 110 CES
Battle Creek, Mich.
11 111 CEF
Willow Grove, Pa.
12 113 CES
JB Andrews Naval Facility,
Washington, Md.
13 114 CES
Joe Foss Field,
Sioux Falls, S.D.
14 115 CES
Truax Field, Madison, Wis.
15 116 CES
Robins AFB, Ga.
16 117 CES
Birmingham, Ala.
17 118 CES
Nashville, Tenn.
18 119 CES
Hector Field, Fargo, N.D.

18 119 RTS
Hector Field, Fargo, N.D.
20 120 CES
Great Falls, Mont.
21 121 CES
Columbus IAP, Ohio
22 122 CES
Ft. Wayne IAP, Ind.
23 123 CES
Louisville, Ky.
24 124 CES
Boise, Idaho
25 125 CES
Jacksonville, Fla.
26 126 CES
Scott AFB, Ill.
27 127 CES
Selfridge ANGB, Mich.
28 128 CES
Milwaukee, Wis.
29 129 CES
Moffett Federal
Air Field, Calif.
30 130 CES
Charleston, W.V.
31 131 CES
Lambert St. Louis
IAP, Mo.
32 132 CES
Des Moines, Iowa
33 133 CES
St. Paul, Minn.
34 134 CES
McGhee/Tyson AP,
Knoxville, Tenn.
35 136 CES
Ft. Worth, Texas
36 137 CES
Oklahoma City, Okla.

37 138 CES
Tulsa, Okla.
38 139 CES
St. Joseph, Mo.
39 140 CES
Aurora, Colo.
40 141 CES
Fairchild AFB, Wash.
41 142 CES
Portland, Ore.
42 143 CES
Quonset State AP,
N. Kingstown, R.I.
43 144 CES
Fresno, Calif.
44 145 CES
Charlotte, N.C.
45 145 RTS
Stanley County, N.C.
46 146 CES
Channel Islands AGS,
Pt. Mugu, Calif.
47 147 CES
Houston, Texas
48 148 CES
Duluth, Minn.
49 149 CES
Lackland AFB, Texas
50 150 CES
Albuquerque, N.M.
51 151 CES
Salt Lake City, Utah
52 152 CES
Reno, Nev.
53 153 CES
Cheyenne, Wyo.
54 154 CES
Hickam AFB, Hawaii
55 155 CES
Lincoln, Neb.

56 156 CES
Luis Muñiz Marin
IAP, P.R.
31 157 AOG/DE
St. Louis, Mo.
58 158 CES
South Burlington, Vt.
59 159 CES
New Orleans, La.
60 161 CES
Sky Harbor IAP, Ariz.
61 162 CES
Tucson, Ariz.
62 163 CES
March ARB, Calif.
62 163 RTS
March ARB, Calif.
64 164 CES
Memphis, Tenn.
65 165 CES
Garden City, Ga.
66 166 CES
New Castle County
ANGB, Del.
67 167 CES
Martinsburg, W.V.
68 168 CEF
Eielson AFB, Alaska
69 169 CES
Eastover, S.C.
70 171 CES
Pittsburgh IAP, Pa.
71 172 CES
Jackson, Miss.
72 173 CEF
Klamath Falls, Ore.
73 174 CES
Syracuse Hancock
IAP, N.Y.

74 175 CES
Martin State AP, Md.
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Anchorage, Alaska
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Atlantic City IAP, N.J.
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Springfield-Beckley
MAP, Ohio
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Toledo, Ohio
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Terre Haute, Ind.
85 182 CES
Peoria, Ill.
86 183 CES
Springfield, Ill.
87 184 CES
McConnell AFB, Kan.
88 185 CES
Sioux City, Iowa
89 186 CES
Meridian, Miss.
90 187 CES
Montgomery, Ala.
91 188 CES
Fort Smith, Ark.
91 188 RTS
Fort Smith, Ark.
93 189 CES
Little Rock AFB, Ark.
94 190 CES
Topeka, Kan.
95 192 CEF
Langley AFB, Va.
96 193 CES
Harrisburg IAP, Pa.

82 200 RHS Det 1
Mansfield, Ohio
97 200 RHS
Port Clinton, Ohio
99 201 RHS
Annville, Pa.
99 REOTS
Annville, Pa.
100 201 RHS Det 1
Willow Grove, Pa.
101 202 RHS
Starke, Fla.
102 203 RHF
Virginia Beach, Va.
103 219 RHF
Malmstrom AFB, Mont.
109 254 RHS
Andersen AFB, Guam
31 231 CEF S-Team
Lambert St. Louis
IAP, Mo.
74 235 CEF S-Team
Baltimore, Md.
39 240 CEF S-Team
Aurora, Colo.
44 245 CEF S-Team
Charlotte, N.C.
65 CRTC GA
Garden City, Ga.
108 248 CEF S-Team
Camp Murray, Wash.
111 CRTC MI
Alpena, Mich.
112 CRTC MS
Gulfport, Miss.
113 CRTC WI
Camp Douglas, Wis.

PACAF

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Col Karl S. Bosworth
Director, Installations and Mission Support

CMSgt David Linde
Chief Enlisted Manager

COMMAND MISSION

PACAF's primary mission is to provide U.S. Pacific Command integrated expeditionary Air Force capabilities to defend the homeland, promote stability, dissuade/deter aggression, and swiftly defeat enemies. The command's vision is to bring the full power of America's Air Force and the skill of its Airmen to promote peace and stability in the Asia-Pacific region. PACAF's area of responsibility extends from the west coast of the United States to the east coast of Africa and from the Arctic to the Antarctic, covering more than 100 million square miles. The area is home to 50% of the world's population in 36 nations and over one-third of the global economic output. The unique location of the Strategic Triangle (Hawaii-Guam-Alaska) gives our nation persistent presence and options to project U.S. airpower from sovereign territory.

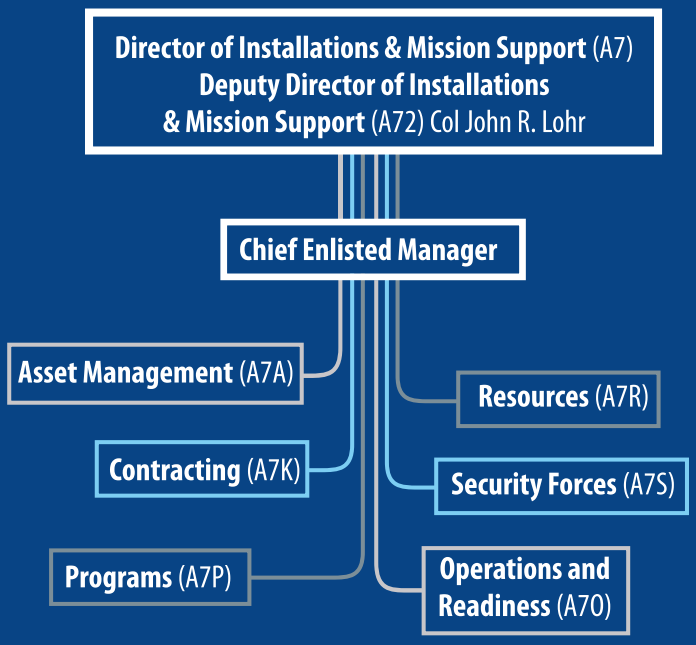
CE RESPONSIBILITIES

The Installations and Mission Support Directorate (A7) leads Civil Engineer, Contracting, and Security Forces activities supporting seven wings, four numbered Air Forces, three joint bases, and 46,000 personnel throughout PACAF. The directorate manages policy, resources, and execution of emergency services, base development, readiness, environmental, force protection, housing, and acquisition programs for $48B in infrastructure and $10B in annual contracts. A7 provides combatant commanders with trained agile combat support forces in support of theater operational plans.

SIGNIFICANT ACCOMPLISHMENTS

- Achieved Air Force recognition for three team level awards (Housing Excellence, Readiness and Emergency Management Flight, and Environmental Restoration) along with four individual awards.
- Completed combined facility energy, condition, and optimization assessments for all major operating bases in PACAF, providing asset visibility on facility components and enabling bases to institute new operations management procedures for facility sustainment and repair.
- Deployed 1,484 Prime BEEF and RED HORSE Airmen in support of operations in Iraq, Afghanistan, Philippines, Palau, and the Horn of Africa.
- Successfully executed $18.8M of energy and water conservation projects with estimated annual savings of $3.8M; won two of 16 Department of Energy 2012 Federal Energy Management Program awards for water efficiency and individual energy savings.
- Managed $137M in Defense Logistics Agency fuels MILCON projects, including the design of a $67.5M fuel transfer pipeline at Andersen AFB, Guam, a $14.8M rail line upgrade at Eielson AFB, Alaska, and a $30.9M hydrant fuel system at Misawa AB, Japan.
- Supported the president's directive to secure peace in Asia-Pacific region and increase United States-Australia military cooperation by developing $160M capital improvement plan for sustained Air Force operations at two Royal Australian Air Force bases in Northern Territory, Australia.
- Surveyed potential operating locations in Yap, Palau, and Australia, and executed overseas environmental reviews in support of U.S. Pacific Commands strategic strategy of building partnerships in the Pacific.
- Executed demo projects to meet goals for consolidation, energy reduction, and elimination of excess facilities, putting command on track to meet 20/20 by 2020 goal.
- Awarded $73M in military family housing (MFH) MILCON to improve 402 units at Kadena AB, Japan, for U.S. forces and their families; completed 96 MFH units at Eielson, representing the fourth and final phase of MILCON allowing the commencement of housing privatization.
- Awarded $6.3M in FY12 Dorm Focus Funds, which enabled the Command to eliminate two inadequate (Tier 1) dormitories (80 rooms total) at Kunsan AB, Korea, and an additional 129 rooms at Misawa.
- Executed airfield assessment and infrastructure baseline analyses at six Philippine Air Force installations to ensure sustainable mission support for anticipated increases in humanitarian assistance and military exercises in the Philippines, expanding the range of force posture options for U.S. military forces in Southeast Asia.
- Reduced vulnerability to cyber attacks on industrial control systems by obtaining authority-to-operate (ATO) certifications for 70% of the command's systems, and on track for 100% ATO certification by end of 2012

CE Units in Command



2012 Statistics

Major Bases	9
Plant Replacement Value	$34.1B
Buildings	66.2M sq. ft.
Airfield Pavement	12.0M sq. yd.
Housing	19,564 units (29% privatized)
Dorms	16,172 rooms

PACAF Personnel

Active Duty	29,568
Reserve	1,321
Guard	4,663
Civilian	8,505
Contractor	3,496

CE Personnel

Active Duty	2,809
Reserve	327
Guard	371
Civilian	2,725
Contractor	1,747

MILCON	10 projects ($239.6M)
S/R&M	310 projects ($136.4M)
Facilities Operation	$188.3M*

*Utilities $177.7M, non-utilities $70.6M

USAFE

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Col Scott Jarvis
Deputy Director of Logistics, Installations, & Mission Support and the USAFE/AFAFRICA Civil Engineer

CMSgt Nathan Adams
Chief Enlisted Manager

COMMAND MISSION

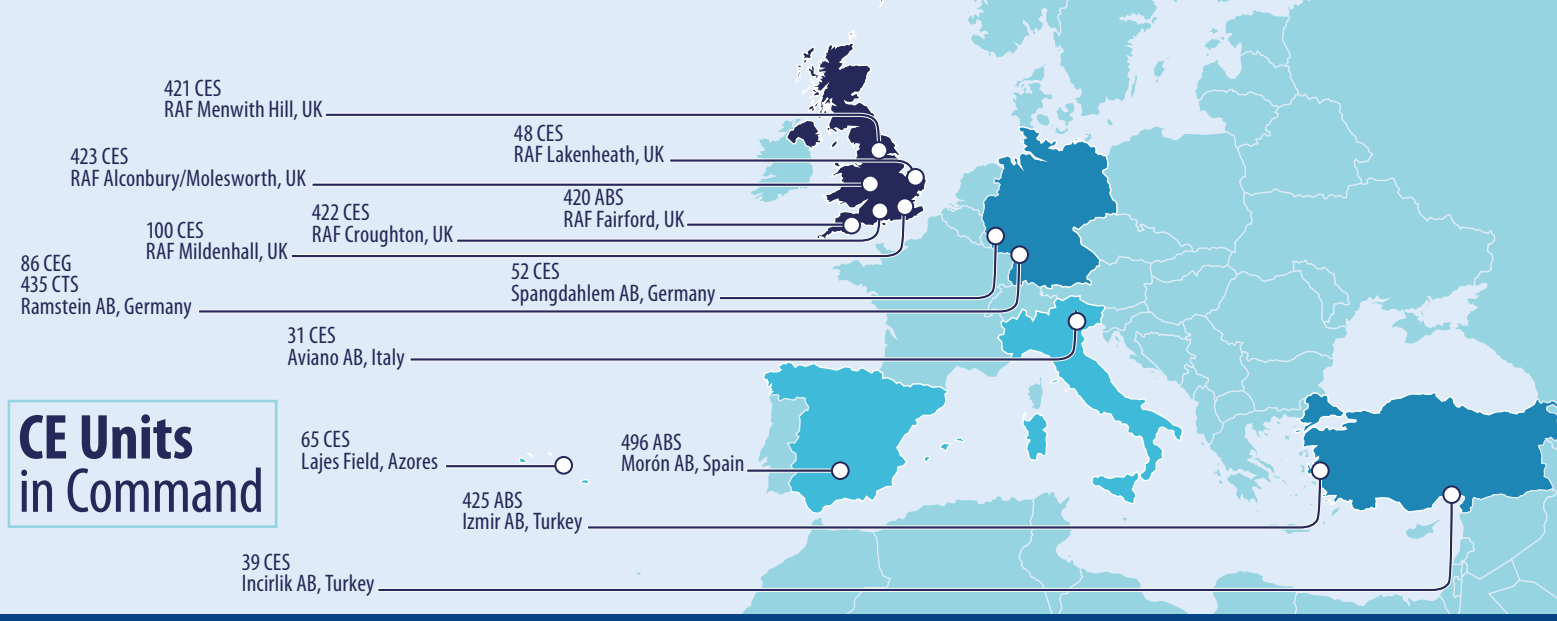
Executes the U.S. European Command and U.S. African Command missions with forward-based air power to provide forces for global operations, ensure strategic access, assure allies, deter aggression, and build partnerships.

CE RESPONSIBILITIES

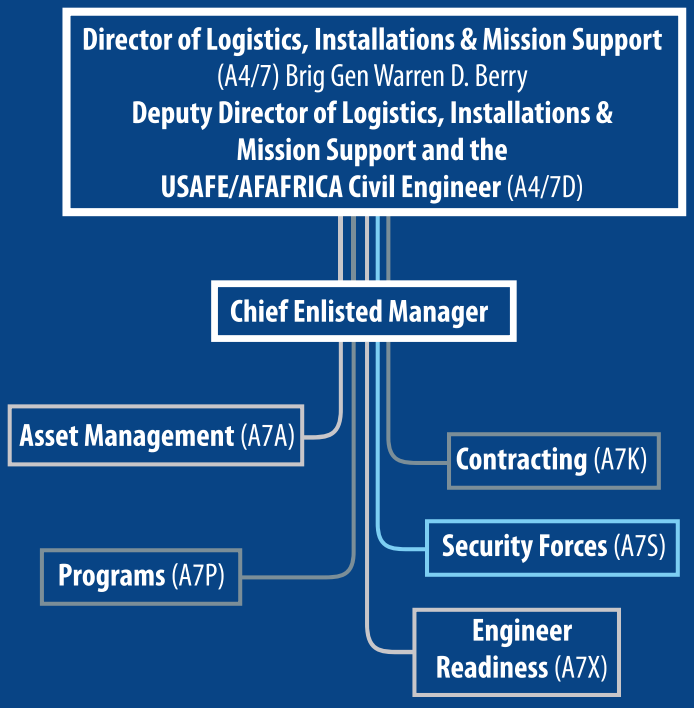
Provide civil engineering programs expertise for senior USAFE leaders, and oversight, policy, and guidance to USAFE civil engineers. Provide civil engineering expertise with oversight, policy, and guidance in managing natural and built assets and their associated performance, risk, and expenditures over the life cycle to a common level of service to support missions and organizational goals. Provide expeditionary and contingency engineering operational support and planning to enable combat, humanitarian, or building-partnership operations.

SIGNIFICANT ACCOMPLISHMENTS

- In concert with the consolidation and merger between 3rd Air Force (EUCOM Air Component), 17th Air Force (AFRICOM Air Component) and HQ USAFE (Management HQ), USAFE A7X consolidated all fire, EOD, emergency management, and contingency/expeditionary engineering staff into one Engineer Readiness Division, to provide a single point of contact to both EUCOM and AFRICOM.
- Accomplished expeditionary site surveys for 28 airfields in 13 countries throughout Europe and Africa; worked with the Logistics Readiness Division to identify contingency operating locations and evaluate capabilities to support future air operations.
- Managed a $6.5M humanitarian assistance construction program; oversaw 17 projects in seven African countries, which directly improved education and quality of life for almost 50,000 civilians while enhancing future African partnership opportunities.
- Drove airfield security upgrades in Ethiopia; programmed four construction projects and captured $1.2M of overseas contingency operations funding to secure and support critical east African remotely piloted aircraft operations.
- Initiated $8.2M overseas contingency operations project to upgrade and expand a ramp at Camp Lemonnier, Djibouti, that replaces the deteriorated existing AM-2 matting with more permanent concrete, erects new squad ops facilities, and enlarges the area available to perform maintenance.
- Worked with AFCEE and NAVFAC to program, capture, and execute $211M in Title 10 U.S.C §2808 funds before the end of FY12 to construct a combat aircraft loading area, a parallel taxiway extension, and expeditionary lodging that increases and reworks containerized living units to centralize and optimize accommodations.
- Teamed with 435th Construction and Training Squadron (435 CTS) to develop a plan to permanently install mobile aircraft arresting systems at Camp Lemonnier.
- Worked with RED HORSE and 435 CTS to program and execute 11 exercise-related construction projects totaling $5.1M in Israel.
- Centralized expeditionary engineering resources at the command by merging with 3rd Air Force and 17th Air Force, creating a single operationally focused engineering staff to support two combatant commands.
- Formalized the USAFE Nuclear Accident/Incident Response program across the command and expanded it to meet a broader range of threats in support of the EUCOM nuclear mission. Led theater efforts to modernize, update, and operationalize geographical combatant commanders' planning guidance on chemical weapon use response.
- Aligned United Kingdom CE operations with future Air Force model, adopting and integrating strategic sourcing, asset management principles and NexGen IT. Although based on a U.K. Ministry of Defence (MoD) template, the Next Generation Estate Contract, which delivers services in FY15, is an innovative solution that maintains U.S. autonomy in continued partnership with the MoD.
- Executed $15M in FY12 MILCON projects, with AFCEE support, that directly impact Air Force missions and USAFE Airmen in Europe and adjacent theaters (UAS SATCOM Relay Complex).
- Continued implementing CE Transformation – realigned USAFE/A7 staff to mirror both the CE squadron of the future and implement HQ USAFE MHQ/Numbered Air Force restructuring imperatives; working with USAFE/A1 and base civil engineers to restructure wing-level CE units and began efforts to transition 11 environmental and real property SMEs to the new Air Force Civil Engineer Center.



- Continued design and logistical support to the programmed $990M Kaiserslautern Military Community Medical Center project which recapitalizes Ramstein AB's medical clinic and Landstuhl Regional Medical Center.
- Successfully integrated AFSOC mission increases with host installation capacity expansion at RAF Mildenhall (more than $90M in MILCON projects), including ramp space for 36 aircraft – all within constrained footprint.
- Coordinated bilateral arrangement with German federal ministries to achieve financial close-out of $172M facility construction project that delivers hotel, dining, shops, and theater to 285,000 transiting troops per year and 40,000 local U.S. personnel, with a plan that relieves the U.S. of any future liability related to pending claims or court actions and removes barriers to future partnerships.
- Validated, obtained, and executed $7M in FY12 S/R&M energy conservation projects; when completed these projects will save USAFE an estimated $1M in annual utility funds. Roofing projects at Ramstein AB include 14 Energy Conservation Investment Fund projects, which will save more than $500,000 and 12,400 MBtu per year.



- Implemented DOD and Air Force policy to eliminate as many family housing leases as possible (relying on communities first to support requirements) with a phased drawdown of 1,581 build-to-lease units between FY10 and FY18 (to date, 977 units have been terminated with estimated savings of $23M).
- Closed 138 contaminated sites in FY12, increasing USAFE's overall site closure rate to 88%; implemented action to meet goal of closing all sites by the end of CY16.

2012 Statistics

Major Bases:	7
GSUs	144 (12 countries)
Plant replacement value	$20B
Buildings	53M sq. ft.
Airfield pavement	12.6M sq. yd.
Housing*	6,380 (0% privatized units)
Dorms	5,638 rooms

USAFE Personnel

Active Duty	24,328
Reserve	239
Guard	216
Civilian (U.S.)	2,146
Civilian (Local)	5,338
Contractor	2,862

CE personnel

Active Duty	1,704
Reserve	10
Guard	22
Civilian (U.S.)	129
Civilian (Local)	2,451
Contractor	1,348

MILCON	4 projects ($53.2M)
S/R&M	409 projects ($180.5M)
Facilities Operation	$237.3M

**total includes 790 leased units*

AFCEC

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Mr. Joe Sciabica
Director

Brig Gen Vincent Saroni
Deputy Director

Col David Reynolds
Deputy Director - Tyndall

AFCEC Org Chart

as of 1 Oct 2012

Director Mr. Joe Sciabica
Deputy Director Brig Gen Vincent Saroni
Deputy Director - Tyndall Col David Reynolds

- Chief Information Office
- Chief Financial Officer
- Director of Staff
- Staff Judge Advocate
- Facility Engineering Center of Excellence
- Installations Center Of Excellence
- Operations Directorate
- Readiness Directorate
- Planning and Integration Directorate
- Energy Directorate
- Environmental Center of Excellence

On Oct. 1, 2012, the Air Force Civil Engineer Center (AFCEC) was activated as a new Civil Engineer field operating agency (FOA), merging the Air Force Center for Engineering and the Environment, the Air Force Real Property Agency, and the Air Force Civil Engineer Support Agency.

AFCEC's mission is to provide ready engineers, engineering and real property solutions, and emergency response services that enable sustainable, highly effective power projection platforms to support the warfighter. With more than 1,600 personnel, AFCEC is headquartered at JB San Antonio-Lackland, Texas, with Detachment 1 located at Tyndall AFB, Fla. Accomplishments for FY12 are organized and presented by legacy FOA: AFCEE, AFCESA, and AFRPA.

The conference room in a recently completed headquarters building at Camp Leatherneck, which supports U.S. Marine operations throughout Helmand Province, Afghanistan. *(U.S. Air Force photo)*

AFCEE

Inactivated 1 Oct 2012

Military Construction

- AFCEE/CM Awarded 90% of the FY12 MILCON/MILCON Medical program (61 of 68 projects). This totals to $1.6B in new Air Force construction.
- Of that total, AFCEE/CM awarded 96% (45 of 47) President's Budget MILCON projects, which total to $1.2B in new Air Force construction.
- Achieved 100% compliance with the Energy Policy Act of 2005 (EPAct 2005) energy reduction mandates.
- Achieved LEED Silver for 90% of all eligible projects.
- Highlights for the FY12 program included awards for the following projects:
  1. First increment for HQ US STRATCOM MILCON ($545M).
  2. HQ Air Force Technical Assistance Center MILCON ($158M).
  3. Phase three of Lackland Ambulatory Care Center, the replacement for Wilford Hall Medical Center ($107M).
  4. support of Luke AFB, Ariz., F-35 Beddown for Pilot Training Center number 1(4 projects/$92M).
  5. Basic Military Training recruit dorm number four ($64M).

Contingency Construction

- Directed a $2B contingency construction portfolio across the Central Asia States and Gulf Coast countries, which directly impacts CENTCOM's engagement strategies.
- Executed the $149M Kabul Military Training Center; monumental effort provides an initial training site for all Afghan National Army forces.
- Led construction efforts for the $183M Ministry of Defense Headquarters, which provides strategic command and control operations, organization, training, and equipping functions for the Afghan National Army.
- Built phase one of the Afghan National Security University; this $184M dollar effort is the jewel of the Afghan National Security Forces professional education for both the Afghan National Army and Police Forces.
- Drove 39 projects totaling $960M in construction supporting the build-out of Joint Operating Base Bastion-Leatherneck-Tombstone, which resulted in an airfield complex allowing International Security Assistance Forces (ISAF) to launch direct action missions and critical medical evacuations in this hostile area.
- Led execution of $17.5M Kuwaiti Combined Enhancement Program, a boost to strategic ally's military.
- Finished $34.5M Shindand runway repair early; this project, the ISAF commander's number one priority, provides vital C-17 ops to Regional Command-West.
- Provided design and construction management oversight for the award of 64 FY10-11 projects (approx. $934M) and construction completion of 25 projects (approx. $350M); assumed responsibility for a 34 AFCENT overseas contingency operations MILCON projects (approx. $406M).
- Led 24 projects ($740M) for NATO Training Mission-Afghanistan Security Force program; ensured unique design/user requirements met to bolster security of Government of the Islamic Republic of Afghanistan.
- Delivered $60M Shindand Afghan National Army Air Corps project award to ensure safe pilot training with upgrades to air traffic control training, air traffic control and landing system, and base utilities.
- Executed $116M in Afghan National Security Forces construction for Regional Command-Southwest, which is key to building Afghan National Army/Afghan National Police capacity of 325,000 by 2014.
- Championed $13.7M command and control facility; drove completion of 64,000 security forces flight battalion commander facility; and stood up new Marine Expeditionary Force Headquarters for 1,000 personnel.
- Saved $11M Zaranj border crossing, which was the Regional Command-Southwest commander's number one development project, creating a huge revenue increase for Nimroz Province.
- Led construction of three Afghanistan Civil Order Police bases totaling $55M, enabling fielding of 1,100 elite Afghan National Police personnel in Helmand Province.
- Piloted Afghan National Police special forces TF444 expansion; bedded down 530 desert commandos; built Lashkar Gah HQ in Helmand ($30M) and facilities in Nimroz ($26M), to bolster Afghan border patrol, deny safe havens to insurgents, and cut Taliban resupply routes.

Housing Privatization

- Delivered 809 new privatized homes and 394 renovations and demolished 1,110 units.
- Took care of Airmen by providing amenities: six community centers, six jogging trails, 52 playgrounds, 36 tot lots, 44 picnic shelters, 23 sports courts, two pools, one spray park, 13 outdoor fitness areas, three dog parks, and 64 bus shelters. Resident satisfaction increased by 2.5%.
- Executed construction at 101.7% of schedule.
- Led tactical re-negotiations of $565M Continental Group housing project amid mission changes, which saved two years and $90M.
- Drove $340M Western Group Military Housing Privatization Initiative award for four bases, with Beale AFB, Calif., housing privatized after 10 yrs, saving Air Force more than $3.5M at final closing.
- Resolved Bolling AFB, D.C., base housing allowance collections, mitigating a $500,000 funding gap and keeping a $591M project on track.
- Articulated complex Moody AFB, Ga., land purchase, and won SAF/IE approval to preserve $70M project.
- Spearheaded urgent award of $11M MFH contract for post closing management within a one-week period; preventing a gap in critical portfolio housing services.
- Served as focal point for congressionally mandated Government Accountability Office audit of support contractors in housing privatization.
- Developed and assembled more than 1,300 pages of document for review; extensive effort and coordination during nine-month audit left auditors with no issues/areas of concern and numerous best practices.

- Developed and distributed senior leadership and awareness outreach briefing materials to educate on public/private partnerships.
- Tailored base-specific housing privatization (HP) housing course materials for 147 new wing and mission support group commander attendees.
- Developed Air Force HP "A Primer for Senior Leaders," to provide senior leaders a broad view of HP, highlighting leadership's role in planning, execution, management, and support.
- Implemented comprehensive HP training program for all stakeholders, with more than 800 trained.
- Conducted more than 100 Management Review Committee meetings to advise, engage, and resolve all stakeholder concerns.
- Conducted annual site visits at over 50 bases, assessing project performance, management, and physical condition of assets.
- Directed AFCEE-led 2012 Professional Housing Management Association professional development training; 14 privatized housing courses presented, 250 trained in two-day period.

Environmental Restoration

- Worked with 37 installations to award $365M in fence-to-fence performance based remediation contracts.
- Resulted in a projected 392% increase in site closures within the period of performance at an overall contract savings of 14%.
- Accelerated closures and sites will result in an overall 44% savings across the 30-year life cycle of the affected sites.

AFCESA

Redesignated 1 Oct 2012

AFCESA provided expert support in three core competencies: readiness, operations, and energy.

Readiness

- AFCESA's Expeditionary Engineering Branch provided ongoing management support to Prime BEEF and RED HORSE programs. AFCESA continued its direct responsibility and control for CEs attending pre-deployment combat skills training as well as for standardizing and scheduling all CONUS Silver Flag and mission essential equipment training.
- Virtual attendance at bimonthly Prime BEEF DCO sessions continued to increase, with attendance consistently ranging from 60-80 participants; weekend sessions for Guard and Reserve showed the greatest improvement. During FY12, more than 263 CE personnel completed Prime BEEF and unit deployment manager training in CONUS, USAFE, and PACAF.
- The AFCESA Reach-Back Center became the all-inclusive customer support center and main point of contact for the new Air Force Civil Engineer Center. The Reach Back Center and CE OIL (observations, innovations, and lessons) fielded 4,132 information requests in FY12.
- The CE unit type code concept of operations was incorporated into the FY12 update of the CE Supplement to the War and Mobilization Plan, Volume 1.
- Air Force Pamphlet 10-219 Volume 5, Bare Base Conceptual Planning, was updated for the first time since 1996. Volume 5 is of particular importance to engineers and mobility team chiefs responsible for initial beddown planning and execution at bare base and forward operating locations.
- Joint Tactical Radio System implementation continued to move forward for the CE community. Centralization of CONUS radio systems at Grissom ARB, Ind. began as an effort to streamline management and enhance response and accountability of CE tactical communications capability.
- The awareness poster series for Air Force's Be Ready Awareness Campaign, developed and managed by AFCESA's Emergency Management (EM) Branch, won the 2012 Top Silver ADDY® Award in the category of public service single medium campaign from the American Advertising Federation.
- EM's training section also developed five Air Force qualification training packages, ensuring coverage of all specialty training standard core/critical tasks currently contained in the 3E9X1 career field education and training plan. The section began a partnership with the Department of Homeland Security to offer EM planners opportunities to attend the National Planners Course.
- EM identified $280M in excess ground crew chemical warfare equipment assets at 170 installations worldwide and implemented a redistribution plan to move excess assets to fill installation shortfalls. EM also identified and eliminated $66.4M in annual requirements and avoided a large over-purchase of assets during FY14-18. The EM Asset Visibility team fielded the Bar Code Inventory Tracking System, or BITS, across all active duty units.
- The Edgewood Chemical Biological Center hosted their first Air Force EM Equipment Working Group with AFCESA/CEXR, the Chem/Bio Branch of the Air Force Life Cycle Center, and HQ Air Force Strategic Plans and Policy Division. The Biodetection Tiger Team analyzed and recommended Air Force withdrawal from the Technology Refreshed-Joint Biological Point Detection System and identified a suitable replacement for the Joint Portal Shield operations (which reaches its end-of-service-life in 2015).
- The Explosive Ordnance Disposal (EOD) Branch continued management of the EOD Information System (EODIMS), a versatile data management and operational reporting tool that captures operational events and enhances trends, analysis and lessons learned programs. EODIMS has experienced immeasurable growth and significance to the EOD community, such that it is the system of choice for the U.S. Army and Marine Corps EOD program, establishing true integration and information sharing across services.
- EOD Equipment Optimization Plan is being developed and anticipated to save USAF and taxpayer dollars by centralizing EOD deployment packages not required for home station Force Protection support. This plan is a direct result of the FY 11/12 Asset Visibility program that established full accountability of the EOD programs equipment in CONUS, OCONUS, and deployed locations.
- The Fire Emergency Service Certification Program (FESCP) was adjusted to clarify the DOD procedures for reciprocity

certification. DOD accepts certification from any entity accredited by the International Fire Service Accreditation Congress (IFSAC) or the National Board on Fire Service Professional Qualifications (ProBoard). The FESCP and certifications issued by it are accredited by both. The terminology "DOD certified" will be removed from DOD policy and replaced with "IFSAC/ProBoard certified" for clarification.

- FES continued evolving with new ultra-high pressure (UHP) technology, which allows firefighting agents to be delivered at 1,200-1,500 PSI. UHP was included on the first 90 P-34 rapid intervention vehicles procured in FY11 and will be incorporated on all major aircraft rescue and firefighting (ARFF) vehicles in the future, which will significantly extend ARFF vehicles' operating time.
- FES partnered with AFRL to develop and test the Pyrolance tool, which uses UHP to punch a pinhole through composite aircraft material (e.g., B-2 aircraft), giving firefighters capability of reaching and fighting fires deep inside composite aircraft and in other concealed places.

Operations

- The Civil Engineer Maintenance, Inspection and Repair Teams (CEMIRT) at Travis AFB, Calif., and Tyndall AFB, Fla., completed 406 work requests valued at $5.9M, including aircraft arresting system overhauls, MEP-12 overhauls, generator overhauls, maintenance, and installations, high-voltage infrared scans, substation breaker maintenance, relay calibrations, HVAC assessments, HVAC commissioning and balancing, and integrated control system design and installation.
- Subject matter experts (SMEs) in the Engineer Support Branch guided 19 technical research and criteria development projects valued at more than $9M, which were executed by AFRL and the Army Engineer Research and Development Center in projects on airfield damage repair pavements, wastewater, aviation fuels systems, and force protection.

A team of pavements and equipment CEs perform repairs during testing of equipment, tools, and materials included in the new Sustainment Pavement Repair (SuPR) Kit, scheduled to be shipped to the field in 2013. *(photo by Mr. Eddie Green)*

- AFCESA SMEs led development of the Air Force Standard for Segmentation of Utilities and the Pavements and Utilities Linear Segmentation Playbook. (More than 200 CEs participated in the playbook-associated webinar.) Using the playbook and standard, BCEs will conduct a linear asset inventory (e.g., water systems, electrical lines) for accurate real property records and efficient O&M.
- SMEs executed 52 ($5.5M) pavement condition index surveys; 35 youth facility certification reports; and produced one AFI and 12 Engineering Technical Letters.
- The Airfield Pavement Evaluation Branch accomplished 35 structural, friction, and aircraft anchor evaluations at airfields around the globe, including evaluations in Europe and contingency locations in Afghanistan, trained 88 Air Force and Marine Corps personnel to conduct contingency airfield pavement evaluations.
- To ensure the safety of Air Force personnel involved in electrical work, CE electrical experts participated in an Air Force-wide satellite broadcast hosted by the Air Force Institute of Technology and AFIT CES instructors. With more than 600 participants, it was one of AFIT's most successful classes.
- AFCESA experts created Arc Flash computer-based training for more than 12,000 personnel in the four career fields with potential arc flash exposure and procured $820,000 in arc flash PPE to outfit 220 CE deployment UTCs, 120 installations, and 4,100 personnel.
- AFCEC's Pest Management SME developed an on-line pest management quality assurance evaluator (QAE) course to enable bases to effectively oversee contract pesticide applications. This resulted in more QAEs receiving DOD-required training worldwide.
- The Pest Management SME worked with installations to prevent and mitigate the rapidly growing and difficult to control problem with bed bugs worldwide. Renewed emphasis on integrated pest management techniques, including education, early identification, rapid response, sanitation, and effective control methods have minimized Air Force bed bug problems.
- The new Preventive Maintenance (PM) program for CE operations flights was established and will take the place of the existing Recurring Work Program. The new PM program changes how CE prioritizes work and assigns resources. It will be standardized across the enterprise and is being designed into NexGen IT.
- The BEAR Power Unit (BPU) is on schedule for delivery to Air Force training sites. The energy-efficient BPU uses advanced power generation technology and will replace the less efficient MEP-12 generators currently in use. Twenty-five CEs have already received vendor training.
- CE's Antiterrorism-Force Protection experts ensured the security of Air Force installations by returning 51 percent (445) of final denial barrier systems back into service; projects are indentified to fix the remaining 49 percent.
- Research and development teams are in the final phase of testing and training on the more energy efficient Emergency Airfield Lighting System II, which incorporates LEDs, solar power, and encrypted wireless communications. EALS II can illuminate a 15,000-foot bi-directional runway.
- Strategic Sourcing experts conducted detailed market studies and business case analyses on rubber removal contracts and roofing repair, paving the way for the best

acquisition strategies to achieve the greatest savings for Air Force installations.

Energy

- The Air Force Facility Energy Center's Conservation and Awareness Branch (CENE) developed the Energy Evaluation Playbook, designed to conduct the second round of facility energy audits.
- CENE began using Air Force Energy Reporting System, or AFERS, for monthly energy reporting and provided training on reporting requirements to MAJCOMs. This moved CENE closer to its goal of "timely, relevant, and accurate data." CENE began collaborating with A7CRT and the NexGen TRIRIGA team to develop requirements for TRIRIGA. CENE managed over 300,000 data points, and reported 10 facility energy metrics to the congressional level.
- The Capital Investment Branch (CENI) continued management of a $1.9B funding strategy (FY10-15) for renewable energy (RE) and energy and water conservation. CENI executed phase two ($81M) of the Sustainable Infrastructure Assessment program, which includes investment grade energy audits at 57 bases.
- During FY12, CENI executed 199 energy focus fund projects valued at $123M. The branch also supported six Energy Conservation Investment Program projects, valued at $40M, to annually conserve 1,734 BBTUs and 2,001 MGals. CENI oversaw design projects ($10M), audits ($23M), RE opportunity assessments ($12.M) and prepared for the FY13 energy investment program ($187M).
- The Energy Rates and Renewables Branch (CENR) supported the development of additional RE projects throughout the Air Force, including three solar photovoltaic power purchase agreements at Davis-Monthan AFB, Ariz. (14.5MW); Otis ANG, Mass. (6MW); and JB McGuire-Dix-Lakehurst (10MW). A 5.4MW waste-to-energy project is also underway Dyess AFB, Texas.
- CENR focused heavily on standardizing training on the renewable project development process with an RE playbook revision and Air Force-wide training sessions. Major efforts concentrated on CE Transformation, an Air Force Net Zero Implementation Plan, and the Air Force's One-Gigawatt Renewable Plan.
- The CENR Utility Rate Management Team (URMT) completed reviews of utility contract acquisitions at 14 installations identifying potential savings of more than $2M. The URMT supported the Utility Law Field Support Center (from the Air Force Legal Operations Agency) with rate negotiations and interventions in nine states.
- The Utilities Privatization (UP) project management office (PMO) scheduled 34 utility systems for privatization: five were awarded, eight were exempted, and 21 continued into FY13. The five privatized systems are valued at $74.3M with cost avoidance of $10.1M. To date, the PMO has privatized 60 water, wastewater, electric, and natural gas utility systems valued at $1.82B with cost avoidance over $297.1M.

The $25M fitness facility at Nellis AFB, Nev. Officially opened in April 2012, the first project building exclusively with in-kind consideration from a lessee. *(photo by Mr. Ray Fuller)*

AFRPA

Inactivated 1 Oct 2012

BRAC Program Management (BPM)

- Air Force representatives and community leaders from Denver, Colo., celebrated the final transfer of 70 acres of the former Buckley Annex to the Lowry Economic Redevelopment Authority during a ceremony May 31, 2012. The transfer will result in approximately 800 homes with close proximity to parks, schools, jobs, and transportation and has the potential to generate almost 700 retail, construction and office jobs, in addition to gaining more than $5M of positive economic growth.
- A ceremony to recognize the whole base transfer of the former Plattsburgh AFB, N.Y., was held on Sep. 19, 2012. All 3,463 acres of the former base were transferred to the Plattsburgh Airbase Redevelopment Corporation and the County of Clinton, which has developed the Plattsburgh International Airport. The airport has generated more than 350 jobs and contributed an estimated $38.6M in economic activity since it opened in 2007.
- The BPM Division has completed whole base transfer of 29 installations; more than 78,000 acres has been transferred to local communities allowing safe and beneficial reuse.
- Led effort to ensure environmental cleanup satisfies all regulatory and statutory requirements. There are remedies in place at 4,376 of 5,185 sites (84%) and on track to have all sites with a remedy in place by 2018.
- FY12 cleanup cost to date is $3.25B and cost to complete cleanup is $1.04B.

Real Estate Transactions (RET)

- Executed purchase/cooperative agreements totaling about $5.19M for FY12 Readiness and Environmental Protection Initiative easements at four installations.
- Processed more than $46M in real property gifts in the past five years throughout the United States, including four new Fisher Houses supporting the Air Force family.
- Provided training for the Real Estate Career Field, including hosting the Worldwide Real Estate Symposium and partnering with Air Force Institute of Technology and the Air Force Civil Engineer Asset Management Division for the annual AFIT 424 satellite course.
- In FY12, RET conducted the second annual Advanced Realty Course, providing advanced instruction for the real

estate career field, training more than 75 Air Force realty specialists from 30 installations across 10 MAJCOMs.
- Completed gift acquisition of 10,968 acres valued at $3.2M at Melrose Range, N.M., in January 2012, to support AFSOC training requirements at Cannon AFB, N.M.
- Completed early transfer of Charleston AFB, S.C., housing annex in October 2011, with 15.9 acres and 22 housing units (approximately 36,841 sq. ft.).
- Completed Barksdale AFB, La., transaction in April 2012, acquiring 55,391 sq. ft. in leased space for $1.68M in rent for one year for the 8th Air Force to minimize impact to mission during remodel of headquarters building.

Real Property Management

- Provided post-closing management for six enhanced use leases (EULs) with a net present value of $231M.
- In January 2012 Hill AFB, Utah, received $11M in value from an EUL with the completion of a new security forces building, the relocation and construction of a new base entry gate and visitors center, and utility and roadway improvements. In January, the EUL developer completed its first commercial project, a 150,000-sq. ft. office building, now leased and occupied by a private defense contractor.
- The grand opening of the $25M fitness facility at Nellis AFB, Nev., was held on Apr. 10, 2012. The project is the first of its kind built exclusively with in-kind consideration from a lessee, in this case, the City of North Las Vegas.
- Managed exit strategy for the remaining Sec. 801 Housing leases which includes more than 3,500 units at six bases; produced a cost savings of ~$62 million through FY16.

Strategic Asset Utilization

- AFRPA has nine EUL projects in post-closing management, with in-kind consideration worth about $232M, or the equivalent of approximately 2,000 HUMVEES.
- Execution of the Air Force's largest EUL project is underway at Hill AFB, Utah. Total in-kind consideration estimated at $136M to replace 1.5M sq. ft. of WWII-era office space and relocate the security gate and associated infrastructure.
- At Wright-Patterson AFB, Ohio, the Air Force negotiated the lease of a hyperbaric chamber to a private company in exchange for free treatment of DOD beneficiaries and training for the Hyperbaric Fellowship program.
- At Eglin AFB, Fla., the Air Force will lease a parcel of beachfront property for a hotel development. The benefits include mission enhancement to the 46th Test Wing, cash consideration to the installation, and discounted room rates for active and retired military.
- At Edwards AFB, Calif., the Air Force is working with a developer to create a scalable photovoltaic solar project on 3,000 acres with a potential production capacity in excess of 400MW of electricity. At maximum capacity, this project would be one of the largest EULs in DOD.
- At Holloman AFB, N.M., the Air Force is pursuing a lease for a 20-MW biomass energy plant which will provide energy security for the installation and a much needed energy production source for the surrounding community by powering over 12,000 homes.
- Successful EULs:
  - Nellis AFB, Nev. – Wastewater treatment plant ($35.69M)
  - Eglin AFB, Fla., – Northwest Florida Regional Airport ($5.85M)
  - Eglin AFB, Fla. – Wastewater Treatment plan ($6.54M)
  - Hill AFB, Utah – Falcon Hill mixed-use commercial development ($136.12M)
  - Joint Base San Antonio, Texas – Mixed-use commercial development ($47.11M)
  - Wright-Patterson AFB, Ohio – Hyperbaric Chamber ($1.3M)

At Tyndall AFB, Fla., a worker changes the sign on Building 1120, reflecting AFCESA's merging with AFCEE and AFRPA to form the Air Force Civil Engineer Center. *(U.S. Air Force photo)*

AFDW

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Col Calvin Williams
Director, Logistics, Installations, and Mission Support

COMMAND MISSION

The Air Force District of Washington, located on JB Andrews, Md., reports to the Chief of Staff, U.S. Air Force, and serves as the Air Force service component to the Joint Force Headquarters-National Capital Region (JFHQ-NCR), providing the designated single Air Force voice for planning and implementing Air Force and joint solutions concerning the NCR. AFDW organizes, trains, equips, and provides forces within the NCR for worldwide employment and Air Expeditionary Force deployments, and prepares and conducts, when directed, homeland operations within the NCR. AFDW executes specified Military Department statutory responsibilities for administration and support of Headquarters U.S. Air Force (HAF) and assigned Air Force units and personnel within the NCR, and worldwide. AFDW provides headquarters support to the 11th Wing, 79th Medical Wing, 844th Communication Group, and the U.S. Air Force Band and Honor Guard.

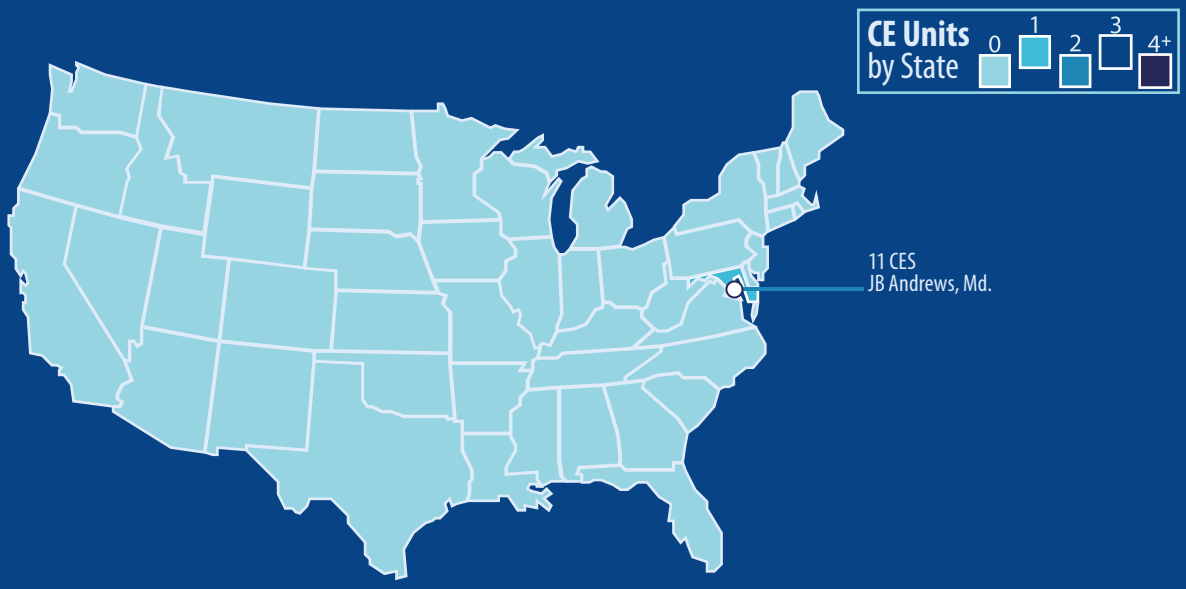
CE RESPONSIBILITIES

AFDW civil engineers perform the major command functions of organizing, training, equipping, and providing assigned Civil Engineer forces from the Office of the Secretary of the Air Force, HAF, AFDW, and other federal and civil agencies located worldwide to support global contingency operations and recovery from natural disasters and major accidents as well as provide regional warfighting support to JTF-NCR. They direct planning, programming, and oversight for installation construction, maintenance, and operations projects. They are responsible for implementing Civil Engineering-specific and Joint Base-specific policies and directives. AFDW civil engineers maintain high-visibility areas such as the Air Force Memorial. They support HAF continuity of operations as well as the facilities and infrastructure required for Air Force One and other distinguished visitor aerial transportation assets. They are responsible for locating and neutralizing explosive hazards that threaten personnel, resources, and local, regional, and national interests, and support the VIP protection activity.

SIGNIFICANT ACCOMPLISHMENTS

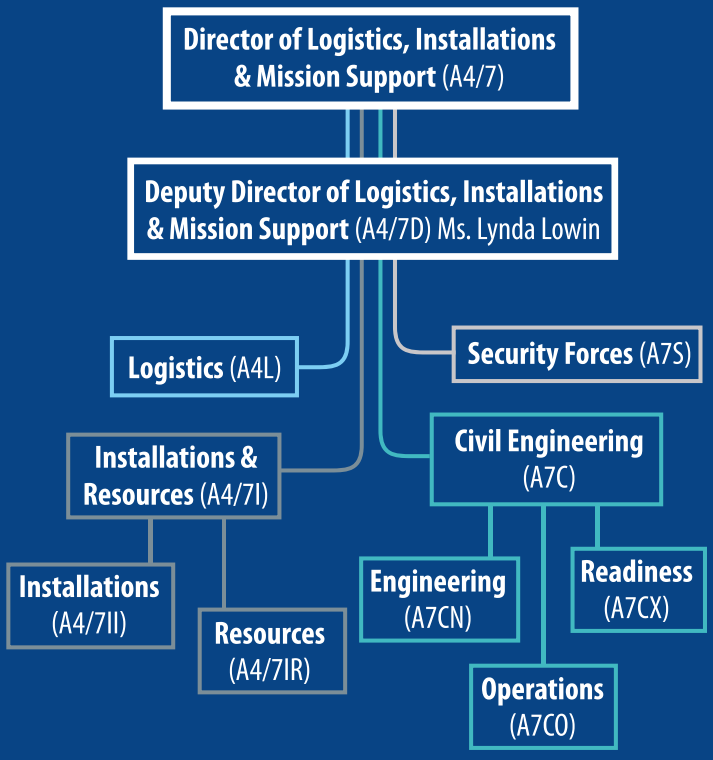
- Launched sublease of Summerfield 801 family housing (1,241 units) to Hunt Development Group in phased-in agreement for an incremental reduction of approximately $19M in rent, operations, and maintenance costs prior to the lease expiration date in CY15; Hunt Development Group assumed ownership of remaining 319 housing units in December 2012. Potential savings could exceed $40M.
- Kept JB Andrews's AMC East Housing Privatization Project's initial development period on the fast track, with projected completion 12 months ahead of schedule; renovated 70 enlisted and 42 officer homes; demolished 42 enlisted homes; constructed ball parks, playgrounds, a welcome center, swimming pool, and dog park, and prepared a community garden for the residents.
- Pursued a joint venture between AMC East Housing Privatization Project and Prince George's County, Md., to bring a charter school to the base that, beginning Jan. 1, 2013, will accommodate 250 students from kindergarten to 5th grade, a total which will increase to 500 students (K-8) over a period of three years.
- Implemented a MAJCOM-level management team to address encroachment issues at or near JB Andrews, enabling the base and the community to address joint encroachment concerns while preserving the base's mission capability.
- Established procedures, issued policies, and provided programming guidance for more than 200 S/R&M, MILCON, Defense Logistics Agency, and storm damage projects worth $280M.
- Secured $2.7M for seven demolition projects, $936K for three energy projects, and $2.6M for an airfield storm drainage design project.
- Provided design and construction management oversight for 10 traditional MILCON and two medical MILCON projects worth $507M, including the William A. Jones Building (BRAC NCR relocation administrative facility) and the General Jacob E. Smart Center as well as a temporary lodging facility, munitions storage area, shoppette, dental clinic, and ambulatory care center.
- Conducted fifth annual BLACK FLAG chemical, biological, radiological, nuclear, and high-yield explosive (CBRNE) capstone exercise, a two-week cross-functional event that allowed 62 responders from JB Andrews and JB Anacostia-Bolling to focus on CBRNE response in a realistic off-site environment using live chemical agents and toxic precursors.

CE Units in Command



- Oversaw joint basing program at two joint bases (one Air Force-led and one where the Air Force is a supported component).
- Won the 2011 Air Force Maj Gen William D. Gilbert Award, Enlisted Category (SMSgt Mark Thrower, HQ AFDW/A7CX).
- Provided EOD support to the Very Important Persons Protection Support Activity, U.S. Secret Service, and Department of State, ensuring the safety and protection of the president while fulfilling 25.5% of the Air Force total missions.

The General Jacob E. Smart Center on JB Andrews, Md.
(U.S. Air Force photo)



2012 Statistics

Major Bases	1
Plant Replacement Value	$4.9B
Buildings	6.6M sq. ft.
Airfield Pavement	2.5M sq. yd.
Housing	1,959 units (100% privatized)
Dorms	827 rooms

AFDW Personnel

Active Duty	4,037
Reserve	113
Civilian	1,030

CE Personnel

Active Duty	325
Reserve	6
Civilian	150

MILCON	0 projects ($0M)
S/R&M	90 projects ($39M)
Facilities Operation	$30M

USAFA

Colorado Springs, Colo.

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719-333-8718 DSN 333-8718

MAIL.DFCE@USAFA.EDU
719-333-3150 DSN 333-3150

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Mr. Carlos Cruz-Gonzalez
Director of Installations

Col Gregory Seely
Permanent Professor and Head of the Department of Civil and Environmental Engineering

Lt Col Patrick J. Carley
10 CES Commander

MISSION

The essential and enduring mission of the U.S. Air Force Academy (USAFA) is, "To educate, train and inspire men and women to become officers of character motivated to lead the United States Air Force in service to our nation." The Officer Development System (ODS) provides all members of the Academy constituency a framework and set of strategies to accomplish this mission. Within the ODS the Academy executes a single integrated course of instruction in which cadets receive an accredited bachelor of science degree and an intensive program of physical education and develop enduring leadership competencies through military development.

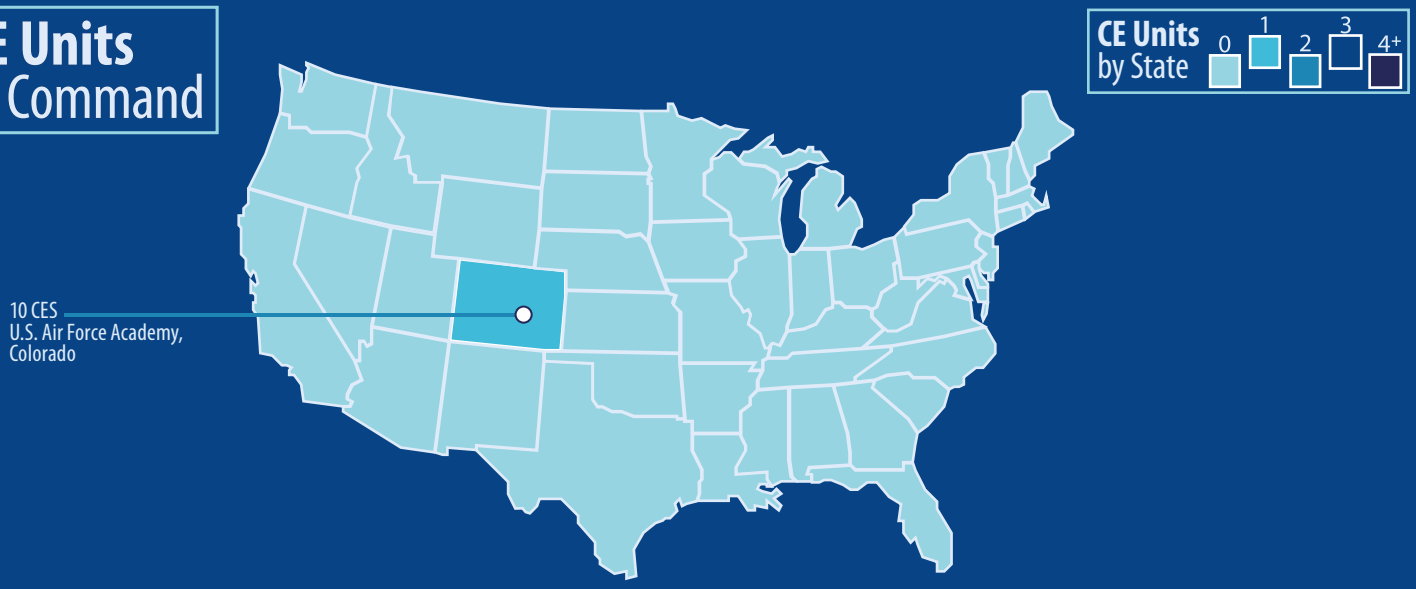
CE RESPONSIBILITIES

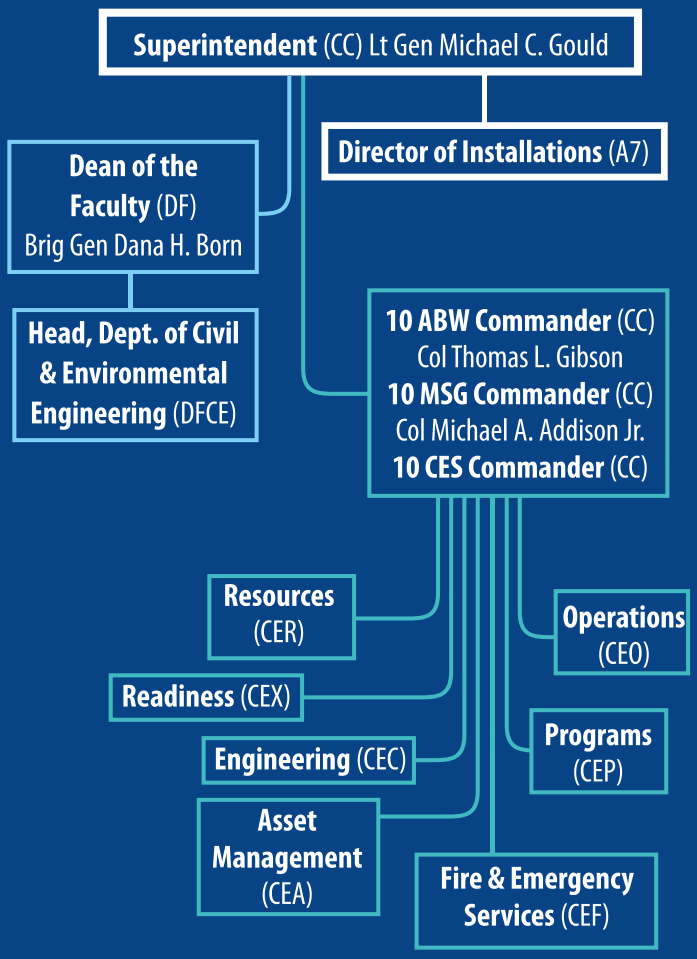
USAFA Civil engineers develop future leaders through instruction, mentoring and through the provision of world-class infrastructure and facilities. The Department of Civil and Environmental Engineering (DFCE) has responsibility for two accredited majors: Civil and Environmental Engineering. Graduates receive civil or environmental engineering bachelors of science degrees and go on to meet mission needs as pilots or engineers. The Directorate of Installations prioritizes, advocates, and coordinates reach back support for USAFA facility requirements. The 10th Civil Engineer Squadron (10 CES) provides emergency services and operates, sustains, and modernizes infrastructure and facilities on USAFA.

SIGNIFICANT ACCOMPLISHMENTS

- Graduated 66 cadets in Class of 2012: 60 Civil Engineering, three Environmental Engineering, and three dual Civil and Environmental Engineering majors (36 entering undergraduate pilot training; 28, Civil Engineering; 1, Special Tactics; and 1, Developmental Engineering.
- Completed 19th offering of CE 351 at the Field Engineering and Readiness Lab, or FERL; under the guidance of 37 active duty mentors and 15 Academy cadets, 84 students (75 USAFA, 4 West Point, 5 Naval Academy) constructed two Navajo homes for the Southwest Indian Foundation.
- Completed $9.7M, FY10 MILCON project, the 36,000 square-foot addition to the Cadet Fitness Center.
- Completed $6.2M sixth-phase renovation of 37,500 sq.-ft. Mitchell Hall Dining Facility; restored temporary kitchen facilities, installed two dishwashing units, constructed elevator, and improved mechanical/electrical systems.
- Completed $1.84M repair of the Kettle Creek Dry Dam, with approximately 3,200 linear feet of concrete storm water drainage pipe and outlet.
- Completed $3.6M sail plane landing area; the 1.2M square-foot aviation turf field provides improved landing surface for new fleet of gliders.
- Completed $13.6M seventh-phase renovation of Vandenberg Hall, installing a new exterior blast resistant curtain wall system and renovating 200 cadet dorm rooms, rest rooms, and mechanical/electrical/plumbingsystems.
- Completed $13.3M third-phase renovation of the Cadet Gymnasium, with repairs to the natatorium pool, locker rooms, HVAC system, and center gymnasium.
- Combated the most destructive fire in Colorado state history, with 141 firefighters from nine agencies. The fire burned 140 acres on the Academy and more than 18,000 acres and 346 homes in the surrounding community.
- USAFA garnered two national championships and a world championship in the firefighter combat challenge, as well as the "Grand National Championship".
- The USAFA "Fire Fembots" received the Trailblazer Award at Colorado State Sportswomen of the Year banquet as undefeated world champions in the firefighter combat challenge three years in a row.
- Capt Adam Strecker was awarded the SAME Bliss Medal, recognizing superior efforts in mentoring students in engineering and related disciplines.
- Lt Col Troy Twesme received the Major General Gilbert Award for top Staff Field Grade Officer in Air Force Civil Engineering.
- Mrs. Elaine Perkins, civilian fire captain, received the DOD National Image Award for Meritorious Service, for her work with the advancement of women in the federal service
- Fire flight incident commanders provided event management to ten air-show equivalents, including six NCAA Division I-A football games and a presidential visit.
- DFCE Faculty published two papers, three conference posters and made two presentations (papers or posters).

CE Units in Command





2012 Statistics

Major Bases	1
Plant Replacement Value	$8.4B
Buildings	6.6M sq. ft.
Airfield Pavement	532K sq. yd.
Housing	673 units (100% privatized)
Dorms	2,458 rooms

Command Personnel

Active Duty	1,792
Civilian	1,582
Cadet	4,000
Prep School	182
Contractor	1,582

CE Personnel

HQ USAFA/A7

Active Duty	1
Civilian	3

HQ USAFA/DFCE

Active Duty	19
Reserve	3
Civilian	7

10 CES

Active Duty	28
Civilian	92
Contractor	550

MILCON	1 project ($6.68M)
S/R&M	71 projects ($54.7M)
Facilities Operation	$28.2M

AFIT

The Civil Engineer School

At The Air Force Institute of Technology

Wright-Patterson AFB, Ohio
CESS@AFIT.EDU
937 255-5654
DSN 785-5654

Col Rodger Schuld
Dean

Dr. Jared Astin
Associate Dean

THE CIVIL ENGINEER SCHOOL MISSION

Providing vital, relevant and connected education that enables Airmen to be ready engineers and great leaders who know how to build sustainable installations to last while leading the change for the Civil Engineering career field.

The school's faculty and staff include 20 military personnel, 17 civilians, and seven contractors.

SIGNIFICANT ACCOMPLISHMENTS

The Civil Engineer School taught about 6,000 civil and environmental engineers in residence, at on-sites, on-line, by DVD, by satellite, and at symposiums in FY12. Below are some of the highlights:

BUILDING READY ENGINEERS

- Graduated and badged 147 new CE total force officers, many of whom have already deployed.
- Accomplished coalition building by graduating one Egyptian lieutenant colonel and two Japanese lieutenants from the CE Engineer Basic Course.
- Facilitated the Joint Engineer Operations Course, prepping our officers for joint jobs.
- Delivered construction inspection curriculum to Provincial Reconstruction Team members to improve Afghan nation building.
- Served as the Air Force representative to CENTCOM's Defense Environmental International Cooperation Program, establishing joint/coalition expeditionary environmental standards.

BUILDING GREAT LEADERS

- Taught 105 EOD Airmen and CE Squadron commanders at EOD safety seminar, an Air Force Civil Engineer special interest item to reduce range risk.
- Taught WMGT 400 squadron command students using a new seminar style format: acting squadron commanders served as seminar leaders along with a senior O-6 mentor to bring valuable insights to the new commanders.
- Piloted a civilian wage grade supervisor's course, turning civilian craftsmen into leaders.
- Three faculty completed the Air Force Marathon.

BUILDING SUSTAINABLE INSTALLATIONS

- Supported federal investigation by the Department of Justice and Office of Special Investigations that identified $15M in potential contract fraud.
- Integrated real case study into electrical design course to enhance power design.
- Acted as lead structural investigator in aircraft shelter collapse, with findings leading to better design direction.

LEADING THE CHANGE

- Championed 10-member panel to standardize Project Management Playbook.
- Laid out framework to provide total force initial skills and badging in one course.
- Continued redesign of satellite courses to better meet student needs through shorter hours per day and time-zone targeting.
- Instituted new start to classes: CE Portal and discussion of new topics.
- Changed lessons to incorporate CE Playbooks.
- Worked with Air Staff to co-author CE Leadership Playbook.

Lt Col Paul Cotellesso, the Engineering Management Department Head, teaches during a recent CE Basic course at AFIT. *(U.S. Air Force photo)*

INSTITUTE OF TECHNOLOGY

AFIT

Graduate School of Engineering & Management

Wright-Patterson AFB, Ohio
937-255-3636 ext 7395
DSN 785-3636, ext 7395

Lt Col Tay W. Johannes, Ph.D., P.E.
Program Director

GEM Faculty:
Lt Col Tay W. Johannes, Ph.D., P.E.
Lt Col Paul Cotellesso, Ph.D. (adjunct)
Al Thal, Ph.D.

GEM PROGRAM DESCRIPTION

Students in the Graduate Engineering Management (GEM) program complete graduate level course work and conduct defense-focused independent research (thesis) on leadership, infrastructure management, construction management, and crisis management. Students develop leadership and project management skills by collaborating with Air Force agencies to identify and execute critical long-term research needs.

Students are expected to publish findings in national peer-reviewed journals. Topics covered in GEM CE-specific courses include construction finance, risk, management, contracts/law, and inspection; asset management; infrastructure management and analysis; geographical information systems; intelligent transportation systems; crisis management; and engineering economics and management.

The faculty leads all aspects of Graduate Engineering Management (GEM) course design, curriculum development, course execution, and student evaluation. The faculty translates senior leaders' vision into degree requirements and program execution and teaches advanced courses in civil engineering. The faculty conducts independent research; directs graduate student research; publishes findings in national peer-reviewed journals, collaborates with Air Force agencies to identify critical long-term research needs, and provides DOD and Air Force consulting as subject matter experts.

SIGNIFICANT ACCOMPLISHMENTS

GEM 12
- Total of 22 Air Force graduates (20 captains and two lieutenants); seven took the professional engineering exam immediately after graduation.
- Students presented five conference papers at peer-reviewed conferences (published in proceedings)
- Students submitted papers to six peer-reviewed journals (three accepted and three in review)
- Received external grants valued at approximately $743,000 to support research

GEM 13
- Current enrollments of 11 Air Force captains
- Received external grants valued at approximately $300,000 to support research

Recent Articles and Conference Proceedings
- Gannon T, Feng P, & Sitzabee W. Reliable Schedule Forecasting in Federal Design-Build Facility Procurement. Lean Construction Journal; 2012;1-14.
- Mull D & Sitzabee W. Paint Pavement Marking Performance Prediction Model. Journal of Transportation Engineering. 2012;138(5):618-24.
- Sitzabee W & Taylor R. Professional Licensure: Is it an Air Force Ethical Requirement? Journal of Professional Issues in Engineering Education and Practice. 2012;138(2):99-103.
- Grace ST, Lytle DA, & Goltz MN. Control of New Copper Corrosion in High-Alkalinity Drinking Water. Journal of the American Water Works Association. 2012;104(1):39-40.
- Lorimer S, Feng, P, & Johannes, T. (2012) Tactical Counterinsurgency Decision Tool for the Commander's Emergency Response Program. Annual Western Decision Sciences Institute, April 2012, Honolulu, HI.
- Ochs KS, Miller ME, & Thal AE, Jr. Time Valued Technology: Evaluating Infrastructure Replacement with Rapidly Emerging Technology. Industrial Engineering Research Conference, May 2012, Orlando, FL. (Best Paper Award in Engineering Economy Track)
- Schiff Z & Sitzabee W. A Spatial Risk Analysis of Oil Refineries within the United States. International Conference on Security and Management, July 2011, Las Vegas, NV.
- Surajbally K, Feng P, Sitzabee W & Suermann P. Mission Assurance Implications for Federal Construction. International Conference on Security and Management, July 2011, Las Vegas, NV.
- Sitzabee W, Feng P, & Sturtevant M. Intelligent Transportation Systems and Asset Management. Inter-University Symposium on Infrastructure Management, June 2011, Chicago, IL.
- Johnson T, Sitzabee, W, & Feng P. Evolution of Relational Contracting in Construction: Project Delivery Methods Beyond Partnering. International Command and Control Research and Technology Symposium, June 2011, Québec City, Canada.
- Pluger M, Feng P, Holt D, & Sitzabee W. Management Analysis of Civil-Military Construction in Iraq and Afghanistan. International Command and Control Research and Technology Symposium, June 2011, Québec City, Canada.

Air Force Civil Engineering History

Significant Events Timeline

4 Jun 1940 • The 21st Engineer (Aviation) Regiment was activated at Ft. Benning, Georgia.

18 Sep 1947 • The Air Force became a separate service, responsible for operation and maintenance of its installations and airfields. The Army was designated the construction agent for the Air Force and the agent for acquisition and disposal of real estate.

Oct 1947 • The Air Installations School was created at the Air Force Institute of Technology at Wright Field, Ohio.

10 Oct 1947 • The Air Force established the Directorate of Air Installations under the DCS Materiel.

11 Jul 1950 • Company A of the 802nd Engineer Aviation Battalion became the first Aviation Engineer unit to land in Korea, where they began work on a 500-foot extension to the runway at Pohang AB.

4 Jun 1954 • The Air Force Academy Construction Agency was established to oversee work for the new institution.

28 Feb 1959 • The Installations Engineering Occupational Field title was changed to Civil Engineering.

1 Oct 1964 • The Prime BEEF program was officially implemented.

1 May 1965 • The first Prime BEEF unit deployed to San Isidro AB, Dominican Republic, from Myrtle Beach AFB, S.C.

10 May 1965 • The Secretary of Defense sent a short note to the Secretary of the Air Force that resulted in the creation of RED HORSE.

6 Aug 1965 • The first Prime BEEF teams deployed to Bien Hoa, Tan Son Nhut, and Da Nang Air Bases, Vietnam, to construct revetments.

Feb 1966 • The first two RED HORSE units, the 554th and 555th Civil Engineering Squadrons (Heavy Repair), deployed to Vietnam.

1 Apr 1966 • The Civil Engineer Construction Operations Group, the forerunner of AFCESA, was created at Wright-Patterson AFB, Ohio.

15 Nov 1966 • Tuy Hoa AB, Vietnam, the only Vietnam-era base built by the Air Force, became operational.

Aug 1975 • The HQ USAF Directorate of Engineering and Services was created with the merger of the two functional areas.

30 Jun 1978 • The Air Force Engineering and Services Center (AFESC) was activated at Tyndall AFB.

Jan 1988 • RED HORSE opened to women.

Sep 1989 • CMSgt Larry R. Daniels became the first Chief of Enlisted Affairs for Engineering and Services.


Operation Desert Shield '91

Aug 1990 • Air Force civil engineers began deploying in support of Operation Desert Shield.

1991 • AFESC was redesignated as the Air Force Civil Engineering Support Agency. The Air Force Center for Environmental Excellence was established as a new field operating agency.

5 Feb 1991 • HQ USAF Directorate of Engineering and Services was realigned under the Chief of Staff and redesignated The Civil Engineer, an assistant chief of staff. Services separated and was integrated into Morale, Welfare, and Recreation.

23 Jul 1991 • The Air Force Center for Environmental Excellence was activated at Brooks AFB, Texas.

3 Oct 1991 • The Vice Chief of Staff aligned Airbase Operability, Disaster Preparedness, and Explosive Ordnance Disposal under Civil Engineering.

15 Nov 1991 • The Air Force Base Disposal Agency was activated, a forerunner of the Air Force Real Property Agency.

19 Dec 1997 • AFCAP issued its first funded task order for recovery efforts from Super Typhoon Paka at Andersen AFB.

11 Sep 2001 • In the aftermath of the World Trade Center and Pentagon bombings on 11 September 2001, Air Force civil engineers provided a wide range of support to the recovery efforts and homeland defense initiatives.

Sep 2001 • Operation Enduring Freedom Prime BEEF teams conducted beddown operations at bases in Southwest and Central Asia. 823 RHS undertook construction projects, including major MILCON projects.

10 Oct 2001 • An Air Force civil engineer became the first fatality of Operation Enduring Freedom. MSgt Evander E. Andrews, assigned to the 366 CES at Mountain Home AFB, Idaho, died in a heavy equipment accident at Al Udeid AB, Qatar.

19 Mar 2003 • Operation Iraqi Freedom began as Air Force engineers opened new bases, expanded additional bases, and recovered captured Iraqi bases.

1 Feb 2006 • HQ USAF/ILE was redesignated A7C as part of the HAF transition to the A-Staff structure.

19 Oct 2006 • Gen John Corley, AF/CV, signed a memo approving Civil Engineering's five transformation proposals: centralizing capital construction execution at AFCEE; reengineering fire emergency operations based on risk assessment; reengineering three AFMC CE Groups to smaller units; realigning military positions into EOD and RED HORSE; and restructuring CE units at all organizational levels.

1 Jun 2007 • The Air Force Center for Environmental Excellence was renamed the Air Force Center for Engineering and the Environment.

Sep 2009 • The first-ever Expeditionary Prime BEEF group and squadrons were activated in Afghanistan.

16 Nov 2009 • The Air Force Real Property Agency moved from Rosslyn, Virginia, to Kelly Annex, Lackland AFB, Texas.

20 Aug 2010 • The RED HORSE presence in Iraq ended when elements of the 557th Expeditionary RED HORSE Squadron departed the country. The first RED HORSE teams deployed to Iraq in March 2003.

CE Transformation. . .

1 Oct 2012 • Accelerated reached IOC with a ceremony establishing the Air Force Civil Engineer Center, a combination of AFCEE, AFRPA, and AFCESA.

CE CAREER FIELD UPDATE

The AFCEC Force Development Division is responsible for Civil Engineer enlisted training for 35,000 active duty, Guard, and Reserve personnel in 12 Air Force specialty codes (AFSCs). Within the division, experts in each AFSC work with career field representatives at the Air Force Personnel Center to provide guidance and civil engineer classification.

They develop career field education and training plans and manage over 240 Web-based courses on the Advanced Distributed Learning Service (ADLS) site and the Civil Engineer virtual learning center, while ensuring that specialty training remains responsive to installation and deployed site requirements. The goal of the Force Development Team is to provide the right training, to the right Airmen at the right time in their careers.

This guarantees we build "Ready Engineers" to meet both home station and deployed missions. AFCECs career field and force development managers also maintain a community of practice, or CoP, which contains the most up-to-date information and guidance for their respective AFSCs.

The following pages provide specific information regarding the current status of each enlisted CE AFSC. Points of contact are listed for each AFSC, and they can be reached through AFCEC's Reachback Center (1-888-232-3721 or DSN 312-523-6995; AFCEC.RBC@tyndall.af.mil). Individual AFSC CoP can be located from the main Civil Engineer CoP page on the Air Force Knowledge Now, or AFKN, site. Please take advantage of these resources.

CMSgt Paul Legg
Chief, Force Development Division
AFCEC/COF

CMSgt Trevor Shattuck
AFRC CE Career Field Manager
AFCEC/COF

3E0X1
ELECTRIC

FY12 proved to be a successful year for asset introduction within CE's electrical community. Research and development teams are in the final phase of testing and training on the highly anticipated Emergency Airfield Lighting System (EALS) II. Building upon the legacy EALS, the new system will not replace it, but will augment it where needs dictate. The EALS II incorporates light emitting diodes (LEDs), solar power, and encrypted wireless communications. The new system will be able to illuminate a 15,000 bi-directional runway and will improve expedient installation practices via a reduction of manpower and the use of renewable resources. The EALS II should hit the Sheppard AFB Electrical Systems School, Silver Flag, and Regional Training Sites during the second and third quarters of FY13.

3E0X2
POWER PRODUCTION

Events over the last year introduced major changes to real property installed equipment and equipment authorization inventory data/document generator operations, inspection, and maintenance with ETL 11-21, Emergency and Standby Generator Design, Maintenance, and Testing Criteria. While generator inspection criteria was somewhat dated, the requirement to change was accelerated because of results from bases conducting the one-time full system test on 25% of their emergency generators. The main focus is for technicians to perform the correct level of maintenance on our critical resources. As techicians understand the requirements within the ETL, the should pursue those waivers for annual inspections. Shop NCOICs should be able to communicate these requirements using risk management principles to wing leadership by providing the correct level of service in a cost-effective manner.

3E1X1
HVAC & REFRIGERATION

In FY12, the need for arc flash training was realized and the computer-based training is now available on the Civil Engineer Virtual Learning Center (VLC) for the following AFSCs: 3E0X1, 3E0X2, 3E1X1, and 3E4X1. The in-depth training covers the different applications of arc flash PPE, approach boundaries, current policies, and minimum-wear criteria. Technicians who complete the training will be equipped with the knowledge to safely handle almost every arc flash related situation, whether at home-station or deployed.

The 3E1X1 community has made big steps in improving contingency equipment and training. The field deployable environmental control unit (FDECU)-9 is in the Air Force inven-

3E0X1

The 3E0X1 career field also continued improving arc flash safety measures, especially in areas related to the wear of 100%-cotton clothing. The career field is working directly with the Air Force Research Laboratory to test the possibility of wearing the 50/50 blended Airman battle uniforms with appropriate arc flash personal protective equipment. The tests impose a high voltage direct fault on 50/50 uniforms to determine if they provide a level of arc thermal protection that will meet the mandates of UFC 3-560-01, the National Electric, and applicable AFOSH standards. Until results are released, technicians are still required to adhere to UFC 3-560-01 for all arc flash protection measures.

On the horizon, during the first quarter of FY13, the Electrical Systems career field will perform a top-to-bottom scrub of its entire education, training and safety programs. A selected team of experts from each of the MAJCOMs will meet at Sheppard AFB, Texas, to perform this critical task. Technicians can anticipate seeing changes to the career field education training plan (CFETP) and to schoolhouse training curriculum.

SMSgt Alexander Thomson
3E0X1 Force Development Manager

3E0X2

The newest contingency power generation equipment entering the Air Force inventory, the BEAR Power Unit (BPU), is in the final stages of contract requirements before delivery to Air Force training sites. The first round of vendor training was provided to 13 personnel from the 49th Materiel Maintenance Squadron, Holloman AFB, N.M., and 12 personnel from various training sites. This first group will help develop our Air Force training program (contingency and technical) and validate web-based training.

The next major milestone is operational user evaluation, scheduled to be completed by January 2013, before another round of vendor training will be provided. Personnel should see the BPU during Silver Flag training and Minimum Essential Equipment for Training events in FY13 and FY14.

In March 2013, the Power Production career field will undergo a top to bottom scrub of its entire education and training program by MAJCOM experts meeting at Sheppard AFB, Texas. Field technicians should anticipate changes to core tasks, schoolhouse training curriculum, and career development courses. When the new CFETP is published, everyone is expected to read through this document to understand upgrade training, certifications, and courses available to enhance technical knowledge.

SMSgt Gary Szekely
3E0X2 Force Development Manager

3E1X1

tory, with multiple improvements, such as a new compressor and evaporator fan, that will make operation and maintenance easier for technicians in the field. Computer-based training on the FDECU-9 can be located on the Civil Engineer VLC website. The new Tricon Refrigeration Containerized System is in the initial testing phase and will replace the Advanced Design Refrigerator 300 in the near future.

MSgt Alvin Dyer
3E1X1 Force Development Manager

3E2X1

PAVEMENTS & EQUIPMENT

Over the past year the Pavements and Equipment career field experienced few changes. SORTS reportable crane training is still a hot topic. The approved crane training locations are Det 1 554 RHS, Kadena AB, Japan; AFRC ECS-TCC, Dobbins ARB, Ga., ANG REOTS/RTS, Fort Indiantown Gap, Pa., 611 CES, Elmendorf AFB, Alaska, and 435 CTS, Ramstein AB, Germany, and for the heavy lift UTC, the 819 RHS, Malmstrom AFB, Mont.

In May 2012, the Pavements and Equipment career field performed a top to bottom scrub of its entire education and training program, with MAJCOM experts meeting in May at Fort Leonard Wood, Mo., to perform this critical task. The

3E3X1

STRUCTURAL

The Structures career field will be faced with many challenges over the next 12 months. With current and potential budget constraints, we must find ways to train our Airmen in the most efficient way possible. A Specialty Training Requirements Team (STRT), composed of a Structures representative from each MAJCOM, met October 22-26 at Gulfport, Miss. The STRT reviewed all training in the three-, five-, and seven- skill levels to determine relevance of the training, based on experience and the Occupational Measurement Survey that most 3E3X1 Airmen completed in the spring of 2012. Approved changes will be implemented in the three-level and career development courses and the CFETP.

As our mission changes in the AOR, Silver Flag may see some changes as well. In the near future, Airmen will be learning new

3E4X1

WATER & FUEL SYSTEMS MAINTENANCE

Airmen in the 3E4X1 career field are responsible for some of the most critical resources provided to support the flying mission during peace and wartime — water and fuel.

The new advanced Fuel System Maintenance Technician course launched in January, targeted for the five-skill-level journeyman. The intent of this course is to provide knowledge and proficiency to members with little or no experience in the fuel discipline. Based on student feedback, revisions to the course will be made to focus on the tasks most likely encountered with fuel systems.

With Utility Privatization (UP) still on the horizon, many CONUS units will lose exterior water and wastewater distribution

3E2X1

group examined the current specialty training standard and made tough decisions to shape future technical school, supplemental, and home station training. When the new CFETP is published, everyone is expected to read through this document to understand upgrade training, certifications, and courses available to enhance technical knowledge.

SMSgt Mike Rose
3E2X1 Force Development Manager

3E3X1

methods for airfield damage repair. Additionally, with attendance and budget issues affecting the structures contingency course at Holloman AFB, N.M., we will explore different avenues to supply this training to the field, which could possibly happen through Silver Flag or Mission Essential Equipment Training.

With updates to 12 areas of the metals layout, fabrication, and welding course reaching the one-year point, feedback from the students has been outstanding. The course now includes problem-solving exercises to test the skills the students, with more focus more on task performance.

SMSgt Jason Frigon
3E3X1 Force Development Manager

3E4X1

systems over the next five years. NCOs are charged with maintaining knowledge and proficiency core tasks lost because of privatization, in accordance with the CFETP. Each UP contract has a provision to allow training with the UP system owner to maintain knowledge and proficiency.

The Occupation Analysis Report (OAR) is finalized and over 75% of active duty, Guard, and Reserve reported they are satisfied with the Water and Fuel Systems career field. Nearly 80% of the three components responded to the OAR survey, which is key in establishing all tasks associated with the CFETP and substantiating upgrade training core task requirements.

Finally, the 3E4X1career field and the BEAR program management office teamed up to requisition a new hygiene system to complement the current latrine and shower/shave kit. The new hygiene system will consist of a separate containerized latrine and shower to provide quality of life in field conditions. BEAR will continue to maintain both old and new systems until funding supports the new hygiene system unit type codes.

SMSgt Michelle Lafferty
3E4X1 Force Development Manager

3E4X3

PEST MANAGEMENT

The Pest Management career field is ever evolving to ensure 3E4X3 personnel in the field have the right training and right tools to accomplish their mission in a safe and efficient manner.

With the FOA consolidation, the new Air Force Civil Engineer Center (AFCEC) will be inheriting command entomologist duties from AFSPC, AFGSC, AFMC, PACAF, and AETC. AFCEC will have three command entomologists on staff to be the focal point for commands with the pest management issues.

The Integrated Pest Management Information System is changing into a web-based application, with a projected release date in December 2012. The recertification course will

3E5X1

ENGINEERING

The Engineering career field continues to adapt to technological advancements. Trimble is committed to the next generation of the Global Navigation Satellite System to ensure better reception and accuracy. On Jan. 1, 2013, the Federal Communications Commission will require frequency licensees to migrate their radio systems from 25 kHz (wideband) to 12.5 kHz (narrowband) bandwidth to increase channel availability and relieve congestion for public safety systems. Non-migrated systems can create interference or interoperability problems for narrowband systems, affecting some of our radios, so we will continue modernizing our entire surveying portfolio.

Autodesk products remain the only authorized software platform for Engineering Airmen to perform their critical core tasks. This past summer, we benefited from the ESRI Enterprise

3E6X1

OPERATIONS MANAGEMENT

In FY12, the CFETP saw some important changes, with several significant training requirements being added to the career field. Attendance at AFIT WMGT 421 and WMGT 436 is highly encouraged. Completion of the AFIT WMGT 570 course became mandatory for active duty and Reserve senior master sergeants and for Guard members seeking promotion to chief master sergeant. Other added mandatory training requirements included courses on green procurement and the DOD shelf-life program, qualification and training packages, and wartime tasks qualification training.

AFCEC is working on launching a web-based material acquisition class for 4FPAM unit type code members, replacing the requirement for in-resident class. Along with home station and

3E4X3

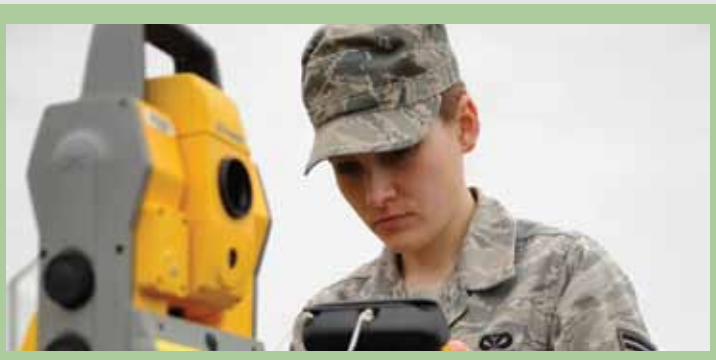
continue to teach hands-on training for equipment. For any pest management issues in the field, the principal documents that serve as guidance and law for Air Force pest managers are AFI 32-1053, Integrated Pest Management; AFI 32-1074, Aerial Application of Pesticides; and DODI 4150.07 on the DOD Pest Management Program.

MSgt Chris Beach
3E4X3 Force Development Manager

3E5X1

License Agreement in consolidating our geospatial engineering software platform. End users will be able to receive Tier 1 customer support and access core GIS software upgrades through their MAJCOM representatives.

Finally, utilization of 3E5X1 Airmen is critical to a stressed Civil Engineer career field. Building information modeling, asset management, linear segmentation, and new methods to airfield damage repair will soon be more common within CE units. A STRT convened earlier in the year to update our CFETP. Initial results yielded great feedback from the field. subsequent discussions on lessons learned from a decade of conflict will translate into significant changes to all aspects of training.



SMSgt Rigo Chacon
3E5X1 Force Development Manager

3E6X1

Silver Flag training, this course will help bridge training deficits members may still be encountering since inception of the wartime tasks.

The 2012 Occupational Analysis Survey, released on Sept. 25, 2012, was open for 60 days. Data will be shared with the 3E6X1 Specialty Training Requirements Team and other Air Force managers to facilitate decisions concerning CFETPs; course and specialty training standards; resident training and career development courses; specialty knowledge tests; and classifications.

MSgt Marla Manyweathers
3E6X1 Force Development Manager

3E7X1

FIRE EMERGENCY SERVICES

The Fire Emergency Services (FES) Specialty Training Requirements Team met to identify training requirements and publish the new CFETP. The transition to liquid petroleum gas on most of the Air Force's aircraft fire training facilities (AFTFs) caused degradation of skills for combating petroleum fires. In response, we initiated a "back to basics" approach, pursuing reinstatement of petroleum-based aircraft firefighting in the apprentice course at the DOD Fire Academy.

Using a centralized maintenance approach, a repair and upgrade initiative for Air Force designed AFTFs was implemented. Fifty-seven facilities were modified to add a running fuel fire scenario along with compliance-required repairs.

3E8X1

EXPLOSIVE ORDNANCE DISPOSAL

The EOD preliminary class at the 366th Training Squadron, Sheppard AFB, Texas, charted a new path for the EOD training pipeline. Class restructuring to concentrate on the skills necessary for success in the basic course at Naval School EOD, Eglin AFB, Fla., lowered the attrition rate in FY12 by 20%, from 53% to 38%. Additionally, the EOD craftsman course was moved from Eglin to Sheppard, with a new operationally focused curriculum to build team leader skills.

The EOD optimization effort centered on AFCENT equipment reconstitution at Hill AFB, Utah, with more than $3M in equipment processed by the end of FY12 and anticipation of more than $5M in FY13. We were able to reclaim $800K in special strategic initiatives, used for the Harris Radio Hold-Up-Battery restoration and Type-1 encryption repair.

3E9X1

EMERGENCY MANAGEMENT

Emergency Management (EM), Bio-Environmental Engineer, and Fire Protection Airmen participated in an integrated chemical biological radiological nuclear (CBRN) exercise and training event at the Center for National Response in West Virginia. The event helped refine the chemical and radiological incident response skills for these career fields, and further defined integrated team response procedures.

The EM career field conducted a STRT meeting Aug. 13-17, 2012, at Ft. Leonard Wood, Mo. The team reviewed and identified proposed updates to the CFETP; specialty training standard, and Community College of the Air Force degree program requirements. Estimated publication date of the new CFETP is April 2013.

3E7X1

To enhance cooperative training between Emergency Management and FES, for the first time firefighters participated as team members in a integrated CBRN exercise and training event. The Joint Firefighter Integrated Response Ensemble (JFIRE) modification, which started in 2009, continues to progress. Durability testing, fit/sizing, and field evaluations have been overwhelmingly supportive of modifications and all JFIRE II ensemble elements are in final testing.

Another FES strategic sourcing initiative is underway with the Enterprise Sourcing Group and the first item purchased will be firefighter personal protective equipment.

CMSgt Kevin Matlock
3E7X1 Career Field Manager

3E8X1

Three years of effort from multiple offices within CE resulted in deployment of the Asymmetric Threat Tactical Analysis Casebook (ATTAC) and the elimination of dual reporting. ATTAC feeds the Combined Information Data Exchange Network and the EOD Information Management System (EODIMS) from a single inputted report. EODIMS may become a true joint reporting system: Army EOD has integrated into EODIMS to meet their incident recording requirements. The Marine Corps is comparison testing it against the Mobile Field Kit as their authoritative reporting system.

The STRT met at Eglin AFB to update the 3E8X1 CFETP and capture lessons learned, resulting in training initiatives such as the new C-IED threat assessment course.

CMSgt James Brewster
3E8X1 Career Field Manager

3E9X1

The EM school hosted 16 apprentice, nine craftsman, and three flight officer courses. Additionally, they helped save the Air Force $370,000 in training dollars by conducting seven CBRN cell mobile training team courses for 91 Airmen. In 2012, EM trained and certified 171 emergency managers, 31 emergency management flight officers, and over 200 DOD HAZMAT technicians. The Air Force Certified Emergency Management program is picking up steam, and issued certifications to four all hazards responders (Level 1), two associate emergency managers (Level II); and four certified emergency managers (Level III).

CMSgt Claudette Watler-Hall
3E9X1 Career Field Manager

OUTSTANDING!
AIRMEN OF THE YEAR

In 2012, two civil engineers were among the 12 Outstanding Airmen of the Year recognized by the Air Force Association for their superior leadership, job performance, community involvement, and personal achievements. The 12 Outstanding Airmen are awarded the Outstanding Airman ribbon with the bronze service star device and wear the Outstanding Airman badge for one year. They also serve on the Air Force Enlisted Council for one year.

SMSgt Emilio Hernandez
100 CES, RAF Mildenhall, United Kingdom

SMSgt Emilio Hernandez served as the 777th Expeditionary Prime BEEF Squadron operations flight chief while deployed to Kandahar Airfield, Afghanistan. During this time, he led 52 personnel and 53 projects, supporting 163 forward operating bases and 83,000 International Security Assistance Force personnel. As the region's only life, safety, and health team manager, he identified 620 hazards at 31 forward operating bases to protect 4,000 personnel. He orchestrated $80,000 in repairs to nine Marine aircraft hangars, safeguarding $300M in assets. He also attained professional manager certification from the Community College of the Air Force and at combat leadership training, led 50 personnel in the execution on 64 training missions. "Coming from a family that migrated from Cuba, we understood how lucky we were to live in the greatest nation in the world," said SMSgt Hernandez. " I always felt that I owed, and still do, so much to America for the freedoms my family and I enjoyed." SMSgt Hernandez is now with the 37 CES, Misawa AB, Japan.

CMSgt of the Air Force James Roy *(left)* and Mr. Sandy Schlitt *(right)* Air Force Association's chairman of the board, present plaques to SMSgt Hernandez *(above)* and TSgt Stark *(below)* at the OAY awards dinner in Washington, D.C., Sept. 17, 2012. *(photos by Mr. Jim Varhegyi)*

TSgt. Matthew G. Stark
354 CES, Eielson AFB, Alaska

Filling a senior noncommissioned officer position for 80 days during combat operations, TSgt Matthew Stark led the most decorated EOD flight in Iraq. He oversaw 27 operations with zero casualties during Operation New Dawn. He revamped the Ali Base weapons safety program, earning a command safety excellence award. He directed the Ali Base response to five rocket attacks. He led responses to several vehicle-borne improvised explosive devices (IEDs), coordinating joint service actions and neutralizing the threats. He also oversaw the response to destroy unexploded ordnance found on a remotely piloted aircraft ramp, securing the aircraft. Handpicked for a presidential security team at the United Nations, he organized and conducted IED sweeps to ensure the security of 193 world leaders. TSgt Start is now with the 7 CES at Dyess AFB, Ariz.

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Deployed or at home...

...Air Force CEs distinguish themselves. Whether they are constructing facilities in the AOR or supporting relief efforts in the U.S., CEs build to last and lead the change!

On the front cover, TSgt Jason Caceres, 557th Expeditionary RED HORSE Squadron, assists the 380th AEW in constructing three, 20,000 square-foot warehouses.
(photo by 1Lt Victoria Porto)

On the back cover, Guard Airmen from the 177 CES use heavy equipment to construct a base camp for utility crews and equipment in Linden, N.J. in the wake of Hurricane Sandy.
(photo by MSgt Mark C. Olsen)

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