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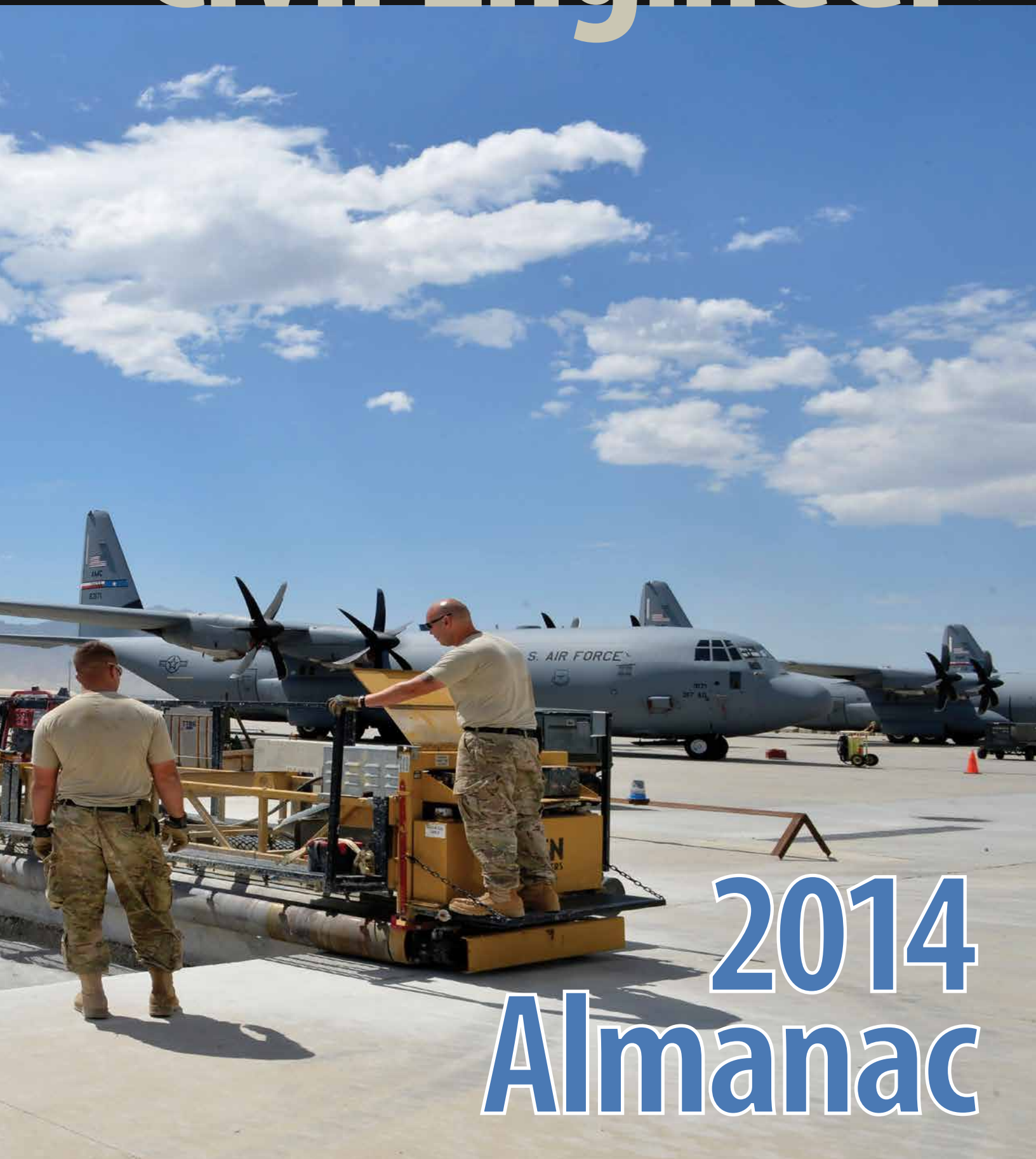

2014 Almanac

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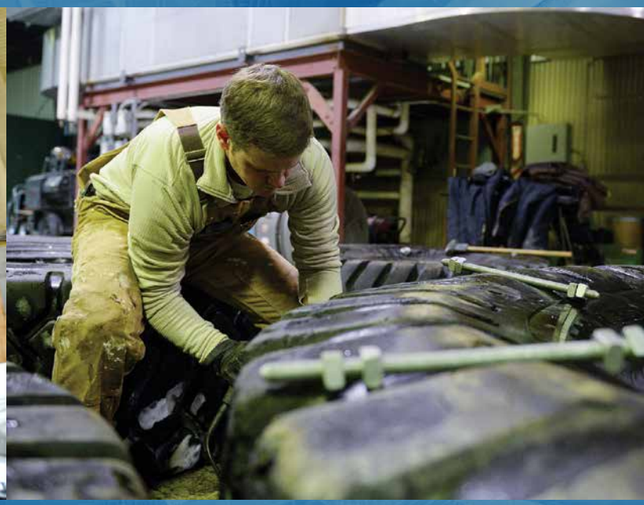

AIR STAFF

On the front and back covers: U.S. Air Force Airmen with the 455th Expeditionary Civil Engineer Squadron prepare to pour concrete on the flightline at Bagram Airfield, Afghanistan May 22, 2014. The 455 ECES ensures operability of the airfield by providing airfield maintenance, construction and operation for the senior airfield authority mission. (U.S. Air Force photo by Staff Sgt. Evelyn Chavez)

Unless otherwise noted, facts and figures presented are based on information submitted to the Air Force Civil Engineer magazine office, current as of Oct. 1 2014.

MAJOR COMMANDS

Director of Civil Engineers
Brig Gen Timothy S. Green
AFCEC Director
Mr. Joe Sciabica
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FIELD OPERATING AGENCY

DIRECT REPORTING UNITS

AFIT

Photos: (left to right)
Two explosive ordnance disposal technicians place explosive charges on munitions slated for disposal at an undisclosed location in Southwest Asia. (U.S. Air Force photo by Senior Master Sgt. Burke Baker/Released)

Clark Peterson, 9th Civil Engineer Squadron roof maintenance team carpenter, patches an area on the Base Exchange roof as part of the base roof restoration project at Beale Air Force Base, Calif. (U.S. Air Force photo by Airman 1st Class Ramon A. Adelan/ Released)

Tech. Sgt. Edward Mendiola and Senior Airman Jamie Torres, 254th RED HORSE members, fasten TEMPER tents for storage at Rush Park, Osan Air Base, Republic of Korea, during Ulchi Freedom Guardian, Aug. 18, 2014. (U.S. Air Force photo by Senior Airman Racheal E. Watson/Released)

U.S. Air Force Senior Airman John Lee, a range maintenance structures journeyman assigned to the 354th Civil Engineer Squadron, preps a tire to be used to smooth out the service of an ice bridge Dec. 2, 2014, at Eielson Air Force Base, Alaska. (U.S. Air Force photo by Staff Sgt. Shawn Nickel/ Released)

Civil Engineers Embrace Rapid Change as the New Normal

In the last year, Civil Engineers have faced a number of changes brought on by fiscal uncertainty and manpower reductions. Former Secretary of Defense Chuck Hagel's directive to reduce headquarters costs by 20 percent challenged the Air Force to take bold steps to restructure its headquarters organization and centralize a number of functions. The Directorate of Civil Engineers responded by streamlining the Air Staff from six divisions into five. The Deputy Chief of Staff for Logistics, Installations, and Mission Support also consolidated and in the process changed its office symbol from the AF/A4/7 to the AF/A4 which more closely aligned to the Joint Staff organizational construct. Most notably, the provisional Air Force Installation and Mission Support Center was activated, centralizing installation management and expeditionary support activities previously performed at each of the MAJCOMs.

Amid the ongoing transformations across the engineer enterprise, Civil Engineers have continued to enable the mission through effective establishment, sustainment, operations, recovery and protection of combat platforms while maintaining our core values. Our Airmen are constantly finding ways to do things smarter, cheaper and faster. This past year, Fire Emergency Services implemented bold plans to modernize vehicles and introduce a new manpower standard. Our Emergency Management team upgraded its training programs to better prepare Airmen, and did it using fewer resources.

When I travel to installations, I see that not only are you getting the job done, you are doing it with energy and enthusiasm — the embodiment of "Can do, will do, have done." I would also like to recognize our outstanding Airmen leaders who dedicate themselves every day to preparing our engineers for the future. You ensure that strong leadership remains a hallmark of Air Force Civil Engineers!

This year also brought us reasons to celebrate Air Force Civil Engineer contributions to warfighters across the globe. This October marked the 50th anniversary of Prime BEEF, an event we will be commemorating through next October when RED HORSE will also reach its 50th anniversary. The rapid response capabilities of Prime BEEF, along with the mobile team concept we've perfected over five decades of deployments, are part of why CE is so frequently requested when the nation faces a crisis, whether a humanitarian disaster or armed conflict.

The Fall 2014 edition of this magazine featured Prime BEEF, describing the importance of the program to aviation history and to today's Air Force. We're also celebrating with a website devoted to the anniversaries, and by producing a video series featuring Prime BEEF veterans. Prime BEEF and RED HORSE are an important part of our collective legacy, and I encourage you to take this opportunity to learn about their place in our history.

Another cause for celebration was the return of the last Air Force EOD units from Afghanistan this September, after 12 long years of support for combatant commanders in Operations Iraqi Freedom, Enduring Freedom and New Dawn. Over the course of 12 years, EOD Airmen completed 55,847 missions and responded to 19,946 IEDs, all while withstanding a grueling deployment cycle. Their success is a testament to the capabilities, training and resiliency of Air Force EOD operators, and to the support of their families and the Total Force home station team.

As we celebrate the achievements of our Airmen, we must remember that our successes come at a price. We'll always remember the Airmen whose lives were lost during OEF and OIF/OND, and offer our support for the many wounded warriors that are part of our Air Force family.

I want to commend you for your patience and continued commitment to enabling the mission during this period of intense organizational change, especially those on MAJCOM staffs. As Secretary of Defense Deborah Lee James said in her State of the Air Force address in September, "All of you need to help us maintain momentum, seize that concept of strategic agility and push boldly into the future."

Plaques from the 466th Operating Location Bravo Explosive Ordnance Disposal flight are prepared for packing at Kandahar Airfield, Afghanistan Aug. 18, 2014. The unit completed their last mission in Afghanistan Aug. 19, 2014 (U.S. Air Force photo by Staff Sgt. Evelyn Chavez/Released)

An Expeditionary Prime BEEF Squadron water and fuels systems manager smooths out concrete at a construction site at an undisclosed location in Southwest Asia. (U.S. Air Force photo byTech. Sgt. Marie Brown/ Released)

While change may seem disruptive to our day-to-day lives, we must consider that flexibility, agility, and adaptation are at the core of our Air Force culture. We were born from technological change and innovation lies at the heart of the Air Force. At the same time, we honor our proud heritage and legacy, built through decades of hard work by Aviation Engineers from all of our AFSCs. I encourage you to continue the great work you're doing in the year to come. The valor and dedication you demonstrate every day proves that CE is up to this task!

Timothy S. Green
Brigadier General, USAF
Director of Civil Engineers

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 2014 The Civil Engineer
2014 to Present Director of Civil Engineers

Brig Gen Robert Kauch
Sep 1944 – Jun 1948

Maj Gen Colby M. Myers
Jun–Sep 1948, May–Dec 1950, Jan–Jun 1952

Maj Gen Grandison Gardner
Sep 1948 – Mar 1949

Maj Gen James B. Newman
Mar 1949 – May 1950

Lt Gen Patrick W. Timberlake
Dec 1950 – Jan 1952

Maj Gen Lee B. Washbourne
Jun 1952 – Jul 1957

Maj Gen Augustus M. Minton
Jul 1957 – Jul 1963

Maj Gen Robert H. Curtin
Jul 1963 – May 1968

Maj Gen Guy H. Goddard
May 1968 – Dec 1971

Maj Gen Maurice R. Reilly
Jan 1972 – Mar 1974

Maj Gen Billy J. McGarvey
Mar 1974 – Apr 1975

Maj Gen Robert C. Thompson
Apr 1975 – Jun 1978

Maj Gen William D. Gilbert
Jul 1978 – Aug 1982

Maj Gen Clifton D. Wright, Jr.
Aug 1982–Feb 1986

Maj Gen George E. Ellis
Mar 1986–Feb 1989

Maj Gen Joseph A. Ahearn
1 Mar 1989–31 Jan 1992

Mr. Gary S. Flora
1 Feb 1992–27 Oct 1992

Maj Gen James E. McCarthy
28 Oct 1992–21 Jul 1995

Maj Gen Eugene A. Lupia
22 Jul 1995–23 Jul 1999

Maj Gen Earnest O. Robbins II
23 Jul 1999–16 May 2003

Maj Gen L. Dean Fox
16 May 2003–23 Jun 2006

Maj Gen Del Eulberg
23 Jun 2006–5 Jun 2009

Maj Gen Timothy A. Byers
5 Jun 2009–22 Jun 2013

Maj Gen Theresa C. Carter
23 Jun 2013–6 Mar 2014

Brig Gen Timothy S. Green
6 Mar 2014–present

Deputy Air Force Civil Engineers

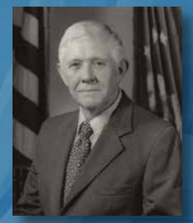
TITLES:

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
1999-2014 Deputy Air Force Civil Engineer
2014-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–Jun 2014

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

Brig. Gen. Timothy S. Green is the Air Force Director of Civil Engineers, Deputy Chief of Staff for Logistics, Installations and Mission Support, 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. He is also responsible for organizing, training and equipping the 60,000-person engineering force and for 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.

Brig. Gen. Green entered the Air Force in 1987 as a graduate of the Air Force ROTC program at Texas A&M University. He has both Bachelor's and Master's degrees in civil engineering. He has commanded a civil engineer squadron and mission support group and served as Special Assistant to two commanders of U.S. European Command/Supreme Allied Commander of Europe. Prior to assuming his current position, Brig. Gen. Green served as the Director of Installations and Mission Support for Air Mobility Command and then Air Combat Command.

The general served as Director of Installations for Air Force Forces in Southwest Asia during the 2007-2008 surge of U.S. forces into Iraq for Operation Iraqi Freedom, supporting more than $1.2 Billion in military construction and engineer operations at 15 installations in 10 countries throughout the U.S. Central Command area of responsibility. General Green is a registered Professional Engineer in the state of Texas.

Chief Master Sgt. Jerry W. Lewis is the Chief, Enlisted Matters, Headquarters U. S. Air Force, Directorate of Air Force Civil Engineers, Washington, D.C. He advises the Director of Civil Engineers 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 and communicate ideas and develop recommendations for senior leadership consideration.

Chief Master Sgt. Lewis enlisted in the Air Force in December 1985 as a Carpenter Specialist. He has a Bachelor's degree in management. The chief 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.

HAF CE Reorganization

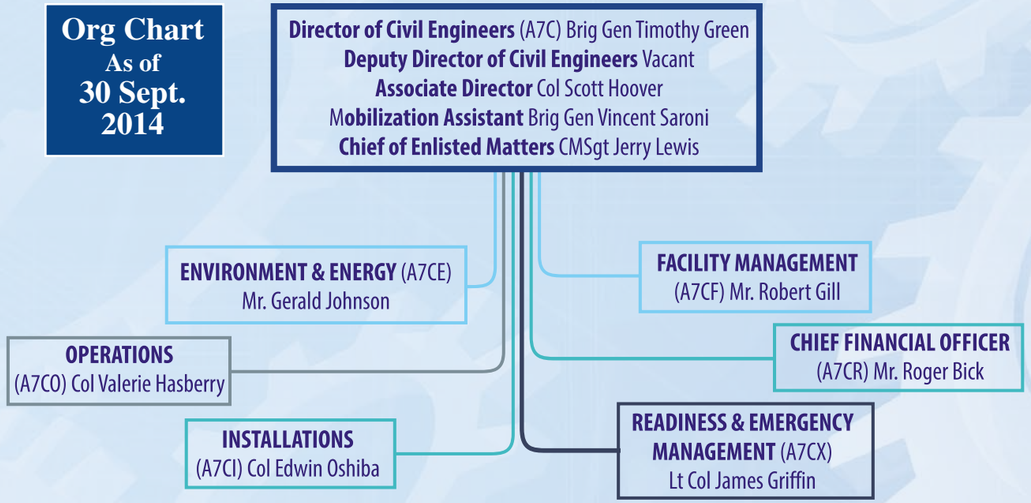
On Oct. 1, Headquarters Air Force underwent a restructuring effort designed to reduce management overhead costs and streamline headquarters functions. The Deputy Chief of Staff for Logistics, Installations and Mission Support consolidated five directorates into four, and changed the office symbol from AF/A4/7 to AF/A4 to align to the Joint Staff organizational construct. The Directorate of Civil Engineers became A4C and the A7CR Resources Division was dissolved in the anticipation of its function transferring to the Air Force Installation and Mission Support Center.

Across all five divisions, the HAF CE organization you're now seeing is much smaller than it was when we started the year. We expect that this leaner organization will not only preserve dwindling resources for direct mission requirements, but will also re-focus our attention on HAF core responsibilities. Those core responsibilities include the development of strategy, policy and guidance; program oversight; engagement and partnerships with Congress, the Office of the Secretary of Defense and the Joint Staff; career field management and development; and resource advocacy. We will transfer programming and budgeting responsibilities, program management, and execution functions previously performed at the Air Staff to the Air Force Civil Engineer Center and the AFIMSC as the AFIMSC matures from initial operating capability through full operating capability.

These changes, when considered along with concurrent changes like the standup of the provisional AFIMSC, can seem overwhelming. We're all being asked to operate more effectively and efficiently, and to work for the Air Force of the future, instead of the Air Force model that is familiar and comfortable. Change is uncomfortable, as is the flexibility and creativity required of those who embrace it. But as Civil Engineers, we're trained to be innovators, and there is no community better prepared to accept and respond to changes. The new A4C staff looks forward to continuing our collaboration with you in 2015 as we continue innovating and building the Air Force we need to be, rather than the Air Force we used to be.

Edwin Oshiba
Colonel, USAF
Chief, Installation Strategy and Plans Division
Office of the Director of Civil Engineers

Headquarters Air Force



Energy and Environment Division, A4CE

(formerly A7CE)

The Environmental program continued to invest in Air Force natural infrastructure to maintain compliance, reduce risk and continuously improve the mission and the environment, in alignment with the Secretary's and Chief's priorities for environmental programs. With 161 installations and 40 range complexes covering 9 million acres of land, the program manages habitats for 115 threatened and endangered species, 598,000 acres of managed commercial forest, 21,069 archeological sites and 6,924 historic structures. The Air Force environmental program also provides compliance services for infrastructure and industrial operations that include maintaining 423 Clean Water Act permits, 185 Clean Air Act permits, disposal of approximately 7,000 tons of hazardous waste and diverting 792,000 tons of non-hazardous solid waste annually.

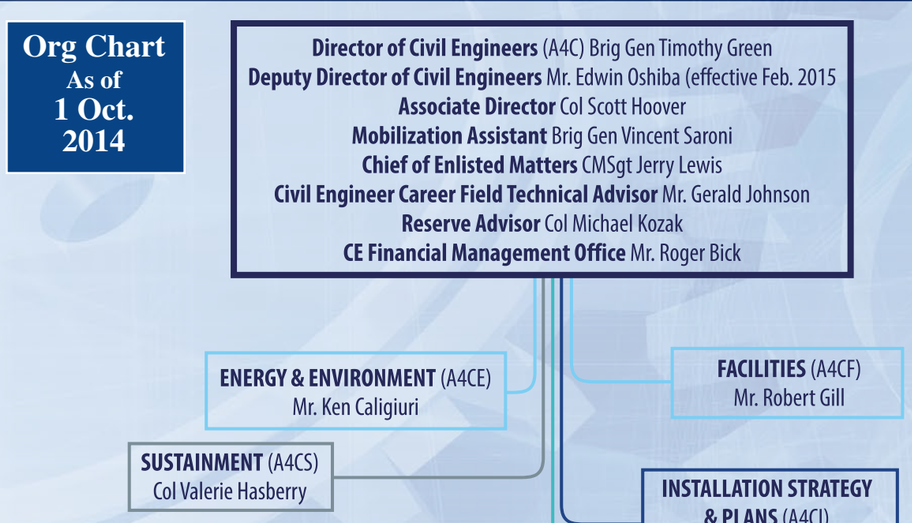
The Environmental Restoration Program continued to realize savings in contract cost and completion time through performance-based restoration contracts. The Air Force achieved Response Complete at 440 sites, and the annual environmental liabilities balance decreased more than $500M in FY14, due in large part to savings in the ERP's long-term costs. The continued centralization of Air Force environmental program management is a significant change, with opportunities to

Senior Airman Daniel Brooks (left) and Senior Airman Abe Hilbers, engineer assistants for the Kentucky Air National Guard's 123rd Civil Engineer Squadron, read blueprints for new construction at William Hinds Boy Scout camp in Raymond, Maine. (Courtesy Photo)

standardize activities, leverage buying power, incorporate best practices and focus on the highest-priority needs.

The Energy Program continued to support the Air Force energy strategy to improve resiliency, reduce demand, assure supply and foster an energy-aware culture. With the end of the focus fund program, energy returned to the facilities, sustainment, restoration and modernization central account. Energy conservation projects now compete with other critical risk-to-mission/risk-to-airmen projects within an installation's asset management process.

A4C Divisions



In FY14, AFCEC executed 147 energy projects worth over $89M and implemented 12 Energy Conservation Investment Program projects from OSD MILCON funds. Projects included facility re-commissioning, lighting upgrades, water conservation and energy monitoring and control systems. The Air Force did not meet its energy intensity reduction goal, but plans to close the gap with aggressive energy project investments through appropriate third-party programs, including Energy Savings Performance Contracts, Utility Energy Service Contracts and OSD-sponsored ECIP projects.

In 2014 the following Utility Energy Service Contracts were awarded: Dyess ($13M investment saving 280 MBTUs/year) and Tinker ($714,000 investment saving 1,847 MBTUs/year). The Air Force continued its progress toward renewable energy goals by executing two renewable energy projects and purchasing both commercial renewable energy and Renewable Energy Certificates, or RECs. To mitigate energy vulnerabilities and increase energy resiliency and reliability, the Air Force privatized four utility systems in FY14 at a first-year cost of $9M and an estimated savings of $31M over 50 years. Additionally, the Air Force executed $63M in ongoing contracts for 62 utility systems privatized prior to FY14.

U.S. Air Force Senior Airman DaQuan Price, 633rd Civil Engineer Squadron pavements and equipment craftsman, cuts a section of the runway at Langley Air Force Base, Va., Aug. 27, 2014. The 633rd CES closed the runway to patch damaged areas preventing foreign object debris from damaging aircraft. (U.S. Air Force photo by Senior Airman Connor Estes/Released)

Facilities Division, A4CF
(formerly A7CF)

The mission of the facility management program is to provide policy, resourcing and oversight for military construction; non-appropriated funds; and facility sustainment, restoration, modernization and demolition projects. The FY14 MILCON program restored funding to near historic levels when compared to FY13, but remains significantly short of the Air Force's needs. The Air Force requested $1.322B for active duty, Guard and Reserve MILCON programs — an $880M increase over the previous year. The 53-project program affects 24 states/territories and three countries. At $899M, the division's FY15 MILCON budget submission was less than FY14's, deferring current mission infrastructure recapitalization requirements to support higher priority warfighting capabilities. On the SRM-D front, the division updated and coordinated publication of AFI 32-1032, addressing new OSD and Congressional policy guidance and updated roles and responsibilities.

The division processed 85 O&M facility repair projects, each totaling more than $5M, and 31 MILCON cost variation or reprogramming packages for approval by the Deputy Assistant Secretary of the Air Force for Installations or for notification to Congress.

Staff Sgt. Melissa Pascua, 154th Civil Engineer Squadron emergency management journeyman deployed from the Hawaii Air National Guard, paints the window of a newly constructed dormitory as part of Pacific Unity 14-8 in Mount Hagen, Papua New Guinea. PACUNITY helps cultivate common bonds and fosters goodwill between the U.S. and regional nations through mulit-lateral humanitarian assistance and civil military operations. (U.S. Air Force photo by Tech. Sgt. Terri Paden/Released)

Heidi Smith, 733rd Civil Engineer Division property officer, measures property assets at Fort Eustis, Va.. The 733rd CED's installation data collection aids the U.S. Army with budget analysis, saving money for the installation. (U.S. Air Force photo by Airman 1st Class Austin Harvill/Released)

The housing program ensures Air Force families and unaccompanied members are provided quality homes and support services worldwide. In FY14, the DOD-mandated information management system, Enterprise Military Housing, was deployed for operations and inventory management of family and unaccompanied housing at 29 overseas and CONUS locations. eMH is the authoritative data source for housing assets in DOD real property databases. System deployment for unaccompanied housing at CONUS installation is ongoing).
To meet DOD's goal to have 90% of the Air Force dormitory inventory adequate by FY17, $57M was awarded in FY14 to replace inadequate permanent party dormitories at Nellis and Cannon AFBs and $13.5M programmed for FY15 for dormitory replacement at Hanscom AFB. To sustain and modernize the required government-owned family housing inventory overseas, 199 maintenance and repair projects were funded totaling $82M. The housing team helped meet the housing privatization goal with the award of 9,161 homes in the Northern Group, Continental Group and ACC Group III. Planning studies are underway to privatize the remaining 100 homes at Wright-Patterson AFB, which is projected to close in August 2016, bringing the privatized housing portfolio to 53,270 homes.

Explosive Ordnance Disposal technicians assigned to the 466th Air Expeditionary Squadron, walk toward a blast pit after detonating four 500-pound bombs during demolition day. Demolition day is designed for EOD technicians to train for future mission. More than 1,200 Operation Enduring Freedom Airmen are deployed in Joint Expeditionary Tasking and Individual Augmentee-status to conduct non-traditional Air Force missions with joint-service partners throughout Afghanistan. More than 350 other Airmen serve in JET/IA positions throughout Afghanistan's Regional Command South, Southwest and West attached to the U.S. Air Force 466th Air Expeditionary Squadron at Kandahar. (U.S. Air Force photo by Staff Sgt. Vernon Young Jr./Released)

Sustainment Division, A4CS
(formerly the Operations Division, A7CO)

Major areas of focus for the division are Operations Program Group; Joint Basing; Air Force Common Operating Levels of Service; Real Property; Space Management; Facilities Operation Efficiencies; and Civil Engineer Officer and Enlisted Career Field Management. During 2014, the division completely rewrote 20 AFIs covering CE Operations and Real Property. The rewrite included tiered waiver authorities for key requirements within the AFIs to meet CSAF's intent of streamlining AFIs to focus on "policy and guidance." The AFCOLS team continued to improve its metrics and reporting tools in order to better inform the Air Force Corporate Structure on how resource decisions translate to base-level services for our Airmen.

The Real Property section worked closely with OSD, AFCEC and installations to prepare for the Financial Improvement and Audit Readiness, or FIAR, assertion. Installation Real Property Accountable Officers can now process Air Force Form 1192s for SAF/IEE's signature electronically through the CE Portal. The application greatly reduces errors and staffing timelines, ensuring a more complete and accurate Real Property Inventory. Finally, the Joint Basing team worked diligently to get a more accurate accounting of Army and Air Force Exchange Service dividends to fund critical Morale, Welfare and Recreation activities for the Joint Base's airmen, soldiers, sailors and Marines.

Installation Strategy and Plans Division, A4CI
(formerly the Installations Division, A7CI)

On Oct. 1, 2014, the Installations Division became the Installation Strategy and Plans Division, supporting the full spectrum of decision makers and stakeholders from the installation level to senior levels of Headquarters Air Force and OSD. The new division has two branches: Strategy and Future Concepts and Integrated Planning. However, this year's submission remains in the former branch structure.

The Planning and Investment Branch's strategy efforts have been crucial to the development of the Engineer Planning Guidance, which will tie installations to higher-level DOD and Air Force objectives. The branch's participation in Total Force-Continuum articulated the demand for engineers, resulting in a recommended increase in Prime BEEF personnel across the Total Force in the FY16 Program Objective Memorandum. The branch continued creation of installation development plans, and provided oversight and input into key National Environmental Policy Act documents supporting basing actions for the F-35 and KC-46 and for initiatives supporting DOD's rebalance to the Asia-Pacific Theater.
The Programming and Strategy Branch, home of the Installation Support Panel, worked with HAF installation support integrated process teams, the agile combat support core function lead at AFMC, and MAJCOM representatives to com-

U.S. Air Force Airmen with the 455th Expeditionary Civil Engineer Squadron, grind down bolts on a polly pad on the flightline at Bagram Airfield, Afghanistan. Grinding down the bolts is necessary to prevent aircraft from popping tires when running over the polly pad. (U.S. Air Force photo by Staff Sgt. Evelyn Chavez/Released)

plete the FY15-19 budget request and the FY16 POM. Despite continued fiscal uncertainties, the ISP successfully advocated for resources to sustain installations, support CE readiness and enable Air Force and combatant command core capabilities. Their partnership with AFCEC's Planning and Integration Directorate resulted in a risk-based installation investment strategy to build the FY16 POM.

The Standards and Governance Branch provided direct support for MAJCOMs and installations implementing CE Transformation through the application of Business Process Re-engineering and the Service Development and Delivery Process. A major effort was the CE Capabilities Process Re-engineering initiative that identified improved processes to enable an enterprise approach to managing all four CE asset classes — built infrastructure, natural infrastructure, equipment and human capital. For A4C, the initiative's culmination will be the implementation of the Installation Support Strategy that captures a resourced/scheduled plan by program area looking out 20 years. Also key was the transition of CE IT Functional Management Office, or FMO, to AFCEC, including roles and responsibilities that support CE capabilities enabled by IT (e.g., NexGen/TRIRIGA), Playbook management and GeoBase execution).

Readiness Division, A4CX
(formerly the Readiness and Emergency Management Division, A7CX)

In 2014, Headquarters Emergency Management established the HAF-level Emergency Management Working Group and formalized six goals for 2014-2015. The HAF EMWG will work towards standardizing concepts and requirements for emergency responders across the Air Force. Emergency Management also undertook a full rewrite of AFI 10-2501 to bring the Emergency Management program in line with current DOD and national standards. The Airman's Manual has made a significant change from being an Air Force Pamphlet, or AFPAM, to becoming an Air Force Tactics Techniques and Procedures, or AFTTP, publication with printable smart cards (final version projected publication in August 2015).

On behalf of A4C, A4CX provided lead Air Force 'user' representation to the Joint and OSD office on all Chemical and Biological Defense Program planning, programming, budgeting and strategic planning efforts. Accordingly, A4CXR Chemical, Biological, Radiological and Nuclear Modernization championed all Air Force CBRN modernization initiatives within the DOD CBRN Enterprise ($6.8B portfolio) ensuring Air Force gaps were funded, and advocated for ~$400M of equity in the OSD Chemical and Biological Defense program, ensuring warfighter capability delivery to the Air Force over the Future Years Defense Program. A4CX also successfully advocated for an additional $18.6M in CBRN defense funding shortfalls through an A4 "Readiness Initiative." This enabled the Air Force to resolve asset visibility challenges with aircrew CBRN equipment; fill gaps in chemical identification (HazMatID Elite); avoid obsolescence in flash blindness/thermal protection for pilots; and deliver qualitative and quantitative gas chromatograph/mass spectrometry (HAPSITE ER) in support of risk health assessment and warfighter reconnaissance missions. CBRN Modernization also established and is executing a strategic roadmap to capture a disaster response force common operating picture concept of employment.

Financial Management Office, A4CR
(formerly the Chief Financial Officer, A7CR)

On Oct. 1, 2014, the Chief Financial Officer became the Resources Division. The division began the fiscal year with authorization from the Continuing Resolution Act to incur limited obligations. In February we received our initial distribution of funds to begin normal operations. We were funded to $1.78B (67%) of our Facilities Sustainment Model and increased to $2.167B (83%) during mid-year funding.

Leveraging technology to save temporary duty funding, the division hosted 10 world-wide virtual training events covering topics from the Continuing Resolution to the Defense Enterprise Accounting and Management System, with the anchor points of the "CE Resources Worldwide" in March and "Turning Toward Home" in July to ensure successful end-of-year execution. The CE Resources Worldwide provided nearly 1,800 CE and FM personnel training and continuing education credits — an Air Force first. The division also provided a three-night training event to 104 people at seven installations in the Western Pacific unable to join other training. In total, the division provided 6,221 training opportunities to CE and FM personnel worldwide.

The acquisitions team facilitated contractor support for all A4C divisions, SAF/IE, SAF/AQC, AFIT and NexGen IT, based on requirements provided from program managers. The team supported the award of seven task orders in May, completing transition and ramp-up activities. Additionally, from August to December four other task orders were transitioned to close out.

Much of the latter part of the year was focused on ensuring the successful standup of AFIMSC. By working with SAF/FM, the MAJCOMs and AFCEC, we postured installations to receive $854M during September to fund critical infrastructure repairs, providing bases 124% of programmed FSM funding. The Resources Division is now maintaining the support level permitted by the current CRA.

The Resources Division is adapting to the new flow of funding through AFMC to the AFIMSC and is bridging HAF, AFIMSC and AFCEC staffs by providing year-of-execution expertise and advocacy within the Air Force corporate structure and financial management meetings. This foundational work is ensuring seamless infrastructure funding support to Air Force installations as the division's functions will transfer to AFIMSC when fully mission capable.

Prime BEEF; Civil Engineer Squadron; U.S. Air Forces Central Command; AFCENT; U.S. Air Force; Air Force Reserve; Air National Guard; 380th Air Expeditionary Wing; 380 AEW; 380th. (U.S. Air Force photo by Tech. Sgt. Marie Brown/Released)

ACC

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Brig Gen Roy-Alan Agustin
Director of Installations
and Mission Support

CMSgt John A. Wilde
Chief Enlisted Manager

COMMAND MISSION

Air Combat Command provides combat-ready forces for rapid deployment and employment while ensuring strategic air defense forces are ready to meet the challenges of peacetime air sovereignty and wartime defense. ACC operates more than 1,000 aircraft from 14 major bases, 22 Air Force wings and more than 500 organizations at 50 locations. As the Combat Air Forces lead agent, ACC develops strategy, doctrine, concepts, tactics and procedures for air- and space-power employment. The command provides conventional and information warfare forces to all unified commands to ensure superiority for America's warfighters and national decision-makers.

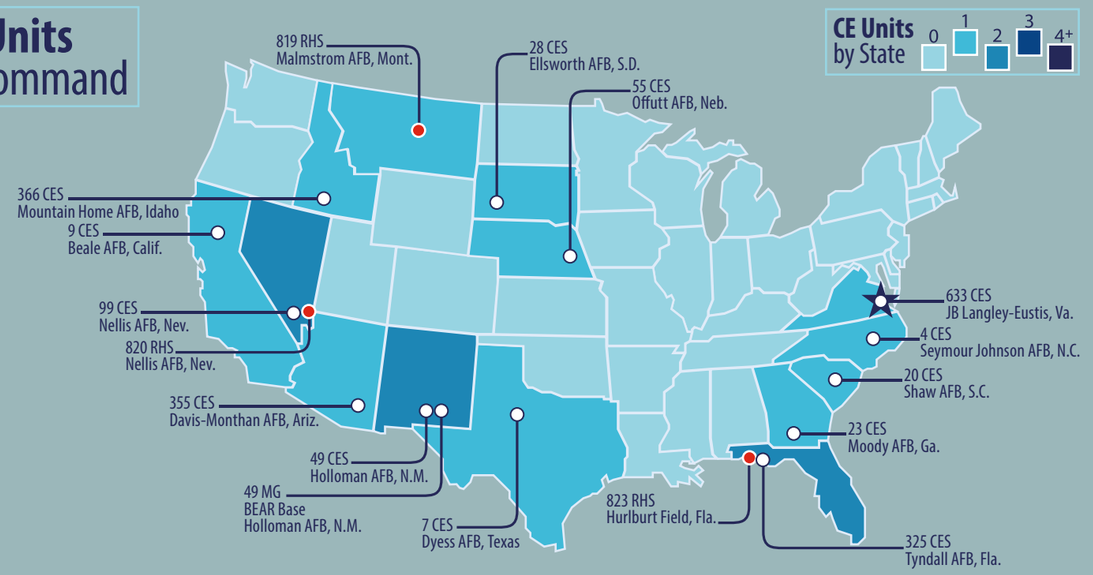
CE RESPONSIBILITIES

ACC A7 develops and deploys mission-ready, motivated, trained and resilient RED HORSE, Prime BEEF, EOD, Fire, and Security Forces Airmen. 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 and policy oversight at 22 wings, 14 major bases, 10 ranges and more than 300 operating locations. The Directorate provides a portfolio of equipment, facilities and infrastructure in excess of $31 billion to support ACC operational and training needs of more than 1,000 aircraft and 79,000 active duty and civilian personnel.

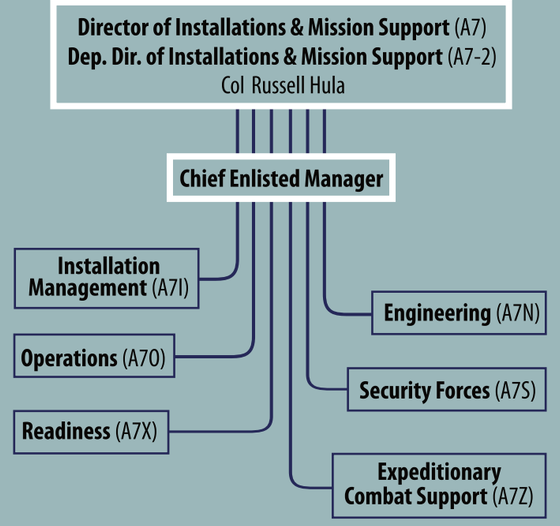
SIGNIFICANT ACCOMPLISHMENTS

- Completed complex F-35A environmental impact statement for F-35A basing at an active duty and an Air National Guard installation.
- Assisted ACC installations improve asset accountability by completing inventory of more than 35,000 real property installed equipment assets using shop personnel.
- Conducted five command-wide infrastructure assessment team visits, identified 590 critical projects ($434M) and prioritized funding.
- Awarded 51 energy and water conservation projects valued at $30.1M with estimated annual savings of 307.6M BTUs and $4.8M.
- Awarded a 10-year, $13M utility energy service contract at Dyess AFB with estimated annual savings of $1.6M.
- Completed construction of DOD's largest (16.4 MW) solar photovoltaic array at Davis-Monthan AFB with $500,000 estimated annual savings.
- Closed $69.1M Moody and Dyess housing privatization projects for 101 new homes.
- Programmed and executed approximately $27.9M in RED HORSE troop training projects at 16 Air Force installations.
- Executed twenty ($1.9M) high-cost leases for AFCENT in compliance with AT/FP standards to ensure U.S. family member safety in deployed locations.
- Ensured CBRN defense capability requirements were met for 18 core capabilities areas, totaling $7.8B in OSD Future Years Defense Plan and $550M of Air Force procurement dollars.
- Enhanced the Emergency Response Capabilities application to provide a comprehensive measure of emergency management capabilities.
- Developed a joint effect model for ACC Readiness and Emergency Management flights and RED HORSE squadrons to ensure all 3E9s maintain hazard plume modeling skills.
- Conducted 447 EOD operational missions; rendered safe 14 aircraft systems and disposed of 17,350 explosive hazards.
- Supported 136 VIP counter-explosive threat missions in 13 countries: 58 for the U.S. President and 78 for the Vice President and Secretary of State.
- Transitioned recovery of airbase denied by ordnance, or RADBO, MRAP urgent operational need into $35.5M program of record; critical coordination effort will facilitate the future of airbase recovery.
- Devised EOD MRAP standard configuration and laydown plan for EOD's 175 enduring MRAP requirements.
- Initiated transfer of Airfield Damage Repair Modernization program responsibilities from ACC to the Air Force Installation and Mission Support Center.
- Lead command for the Air Force Fire Emergency Services Career Roadmap, published in August 2014 to support DoD Strategic Workforce Plan (2014-2019).
- Fire Emergency Services partnered with Surgeon General counterparts to address improved level of service delivery; installation-specific memorandum of agreement/understanding finalized for optimum mission assurance and improved EMS capability.
- Moody and Shaw Fire Departments achieved national accreditation through self-assessment and peer review.

CE Units in Command



- Developed the Expeditionary Airfield Management and Planning Tool (ExAMP), a secure means for airfield obstruction and waiver request submittal and approval.
- Standardized facility (CAD) and interior space (GIS) data to provide a common baseline for facility and space optimization managers.



U.S. Air Force Staff Sgt. Jhanzzen Singleton, 20th Civil Engineer Squadron power production craftsman, starts the engine on the mobile aircraft arresting system at Shaw Air Force Base, S.C., Oct. 17, 2014. Singleton checked the engines and functions in preparation for the 20th CES Fire Department's monthly training where firefighters train to maintain their knowledge of the arresting system. (U.S. Air Force photo by Airman 1st Class Jensen Stidham/Released)

2014 Statistics

Major Bases	14
Plant Replacement Value	$31B
Buildings	34.78M sq. ft.
Airfield Pavement	40.3M sq. yd.
Housing	11,575 units (100% privatized)
Dorms	10,394 rooms

ACC Personnel

Active Duty & Civilian	79,000
Reserve & Guard	51,000

CE Personnel

Active Duty	5,110
Reserve	1,609
Guard	4,487
Civilian	2,050
Contractor	1,948

MILCON	13 projects ($278.1M)
SRMD	626 projects ($483M)
Facilities Operation	$235.5M

AETC

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

CMSgt Eric J. Honeycutt
Superintendent, Civil Engineer

COMMAND MISSION

Recruit, Train, and Educate Airmen to deliver airpower for America

CE RESPONSIBILITIES

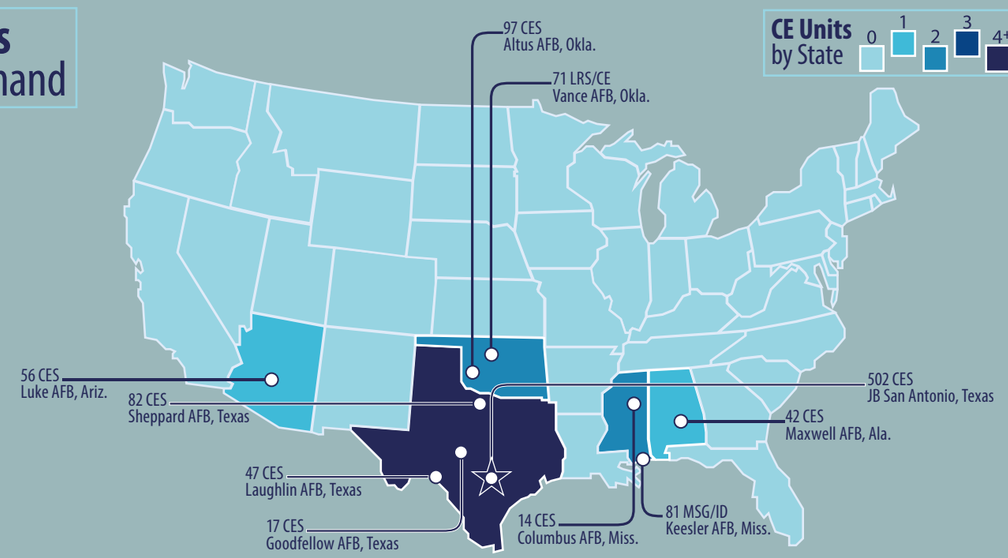
AETC CEs provide comprehensive land-use planning and design, construction and maintenance management for AETC installations and facilities. They plan and program MILCON, O&M and energy projects. AETC/CE is responsible for development, preparation, submittal and maintenance of financial plans, budget estimates and financial management systems. AETC/CE provides living quarters for permanent-party and transient military members, students and contractors. AETC/CE delivers fire protection and prevention, public education and emergency response services and locates, identifies and neutralizes explosive hazards threatening personnel and resources. AETC/CE trains, equips and deploys Prime BEEF personnel to support global operations and recovery from natural disasters and major accidents.

SIGNIFICANT ACCOMPLISHMENTS

- Deployed 144 personnel (Prime BEEF, Fire Emergency Services, Emergency Management, EOD) to Southwest Asia and AFRICOM in support of AEF taskings.
- Designed and awarded $2.8M Energy Conservation Investment Program xeriscape landscape project (Phase II) at Laughlin AFB with projected annual savings of $340,000, 185 MBTU of energy and 70 million gallons of water.
- Awarded $2M exterior lighting task order, becoming the first DOD facility to award under the ESPC ENABLE Program.
- Awarded $4.8M third-party financed task order to be funded by local electric utility for HVAC upgrades at minimal cost to the government.
- Approved first-ever Air Force prototype of streamlined Utilities Privatization effort.
- Completed first dining/classroom facility and second of eight airmen training centers for basic military training campus.
- Completed F-35 squadron operations and aircraft maintenance unit MILCON projects ($16M) for arrival of the first F-35 aircraft at Luke AFB in March 2014.
- Awarded two F-35 MILCON projects for $26.9M at Luke AFB (Sq Ops/AMU #3 and "add-to" field training detachment), while continuing construction on two previous F-35 projects (academic training center and Sq Ops/AMU #2) for $71.5M.
- Completed F-16 MILCON projects at Holloman AFB for academic training facilities ($10M) for arrival of the first squadron of F-16s in April 2014 and start of training May 2014.
- Received record of decision by the Secretary of the Air Force on April 22, 2014, which selected Altus AFB as the formal training unit for the Boeing KC-46A Pegasus tanker aircraft.
- Supported Goodfellow AFB emergency response common operational picture test and evaluation sponsored by AFSFC/AFCEC.
- Partnered with AFMC, 377 MSG/CE and 58 SOW to eliminate a critical Risk Assessment Code (RAC-1 for chromium clean-up) at Kirtland AFB.
- Achieved the highest CE MAJCOM Mission Ready Training and advance course training execution rate of 100% for four consecutive years.
- Conducted 96 EOD operational missions; cleared 6,403 acres and 24,099 ordnance items from ranges, resolved seven suspect IEDs and performed 5,300 hours of VIP support on 27 missions.
- AETC Fire Departments responded to 7,018 Fire Emergency Service-related events, including 57 fires, 2,557 medical services calls, and 1,493 hazardous calls relating to aircraft.
- Altus AFB won the Air Force 2014 Air Force Commander's-in-Chief Installation Excellence Award.
- AETC's Capt. Timothy Callahan, an instructor and course director at the Air Force Institute of Technology, won the National Society of Professional Engineers' 2014 Federal Engineer of the Year Award.

Airman Nicholas Rose, 312th Training Squadron student, poses for a photo after a training session at the Louis F. Garland Department of Defense Fire Academy, Goodfellow Air Force Base, Texas. Rose and his classmates just finished putting out fires for the first time in their training. (U.S. Air Force photo by Airman 1st Class Devin Boyer/Released)

CE Units in Command



Director of Logistics, Installations & Mission Support (A4/7) Mr. Gilbert J. Montoya
Principal Deputy Director of Logistics, Installations & Mission Support and the Civil Engineer (A4/7D-2)
Deputy Civil Engineer (A7N) Mr. James E. Fitzpatrick

- **Engineering** (A7N)
- **Operations** (A70)
- **Security Forces** (A7S)
- **Maintenance** (A4M)
- **Logistics Readiness** (A4R)
- **Resource Integration** (A4P)

2014 Statistics

Major Bases	10
Plant Replacement Value	$23.7B
Buildings	79.5M sq. ft.
Airfield Pavement	21.9M sq. yd.
Housing	5,742 units (100% privatized)
Dorms	17,123 rooms

AETC Personnel	
Active Duty	29,748
Reserve	1,061
Guard	4,890
Civilian	15,006
Contractor	11,197
CE Personnel	
Active Duty	579
Reserve	25
Guard	209
Civilian	2,087
Contractor	2,043

MILCON	5 projects ($43.4M)
SRM	348 projects ($357M)
Facilities Operation	$187M

AFGSC

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Col Jeffrey R. Ullmann
The Civil Engineer and Chief, Operations and Readiness Divisions

CMSgt Gary P. Underwood
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.

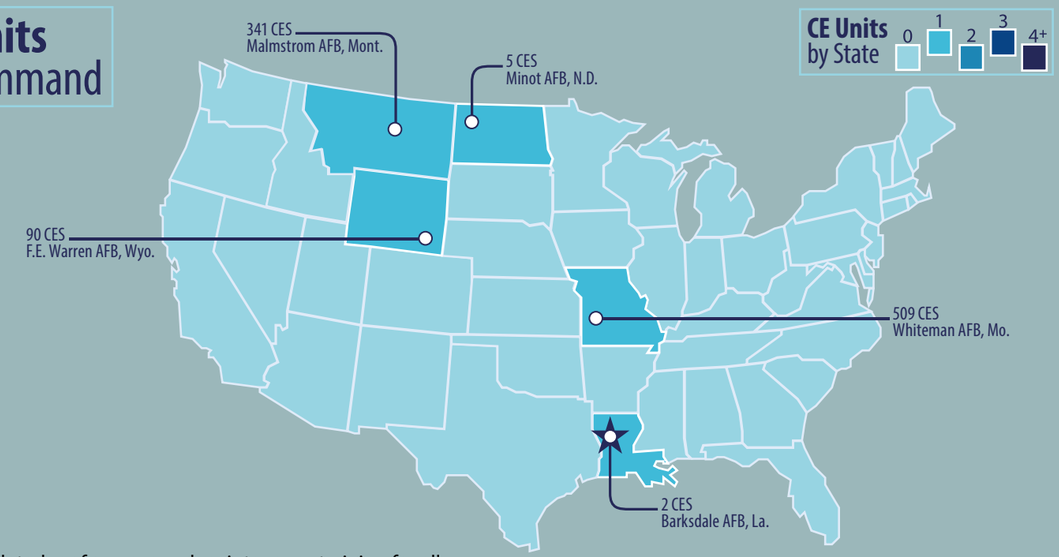
CE RESPONSIBILITIES

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; energy; manpower and training; technical support and facilities SRM. HQ AFGSC engineers also oversee training, equipping and deployment of Prime BEEF engineers in support of global contingency and combat operations.

SIGNIFICANT ACCOMPLISHMENTS

- Postured 1,400 CEs in 1,305 UTCs and deployed 377 CE warriors in 102 UTCs, supporting 17 deployed locations.
- Completed $59M, three-phase, three-year repair program for Minot's runway (the worst in the Air Force) to restore this vital piece of the Air Force's strategic mission.
- Completed demolition of 104 ICBM silos to meet the requirements set by the New Strategic Arms Reduction Treaty.
- Executed 91 projects worth $41.8M for the ICBM Force Improvement Program, addressing aging infrastructure concerns and reinvigorating the nuclear enterprise.
- Continued execution of $1.3B corporate initiative to replace bases'1960's era weapon storage areas with single facilities that handle all functions under one roof; completed 35% of design for F.E. Warren AFB WSA; began planning charrettes for other four AFGSC bases.
- Completed the $107M AFGSC beddown program, including facility renovations and office space for 750 people.
- Kicked-off Air Force's first Missile Installation Compatibility Use Zone, creating a comprehensive enterprise-wide encroachment management program; completed Installation Complex Encroachment Management Action Plans at all AFGSC installations, including all 45 missile alert facilities and 150 launch facilities.
- In partnership with AFCEC, coordinated the installation of the Air Force's first and only B-2 live fire trainer at Whiteman AFB, providing firefighters with a realistic simulator to enable them to safely and effectively extinguish fires located within the B-2's engine bay.
- Conducted first ever AFGSC missile alert facility risk assessment in response to an incident that occurred in late 2013, providing an analysis of the facility risk assessment, capabilities of the supporting emergency responders, and estimated travel times of responsible agencies.
- Executed nine training events for nuclear weapons incident consequence management for AFGSC responders, including the first AFGSC Response Task Force training event at Whiteman AFB, that enabled more than 780 members of AFGSC, Department of Energy, Department of Justice and members of various local and state agencies to gain invaluable experience in working together as an interagency response team.
- Participated in HYDRA Fury-14, a technical training event aimed at enhancing the nuclear weapon accident incident response competencies of EOD personnel supporting installation initial response forces; the event brought together Air Force and Navy custodial EOD incident response force teams, FBI Special Agent bomb techs, and Department of Energy technical elements to hone weapon accident incident response proficiencies.
- Completed coordination/realignment of CE equipment UTC posturing within AFGSC, ensuring adequate CE support to USSTRATCOM strategic bomber aircraft recovery and regeneration operations.
- Completed the installation of the CE VLAN 1.0 ($124K) at three of five bases, enhancing information assurance of CE industrial control systems by logically isolating systems to minimize potential cyber threats and attacks.
- Awarded the first AFGSC-wide active vehicle barrier maintenance contract; a multi-year maintenance contract to provide maintenance, preventative maintenance and inspection of active vehicle barriers at all five AFGSC bases at a cost of $1.62M for a total of 42 barriers.

CE Units in Command

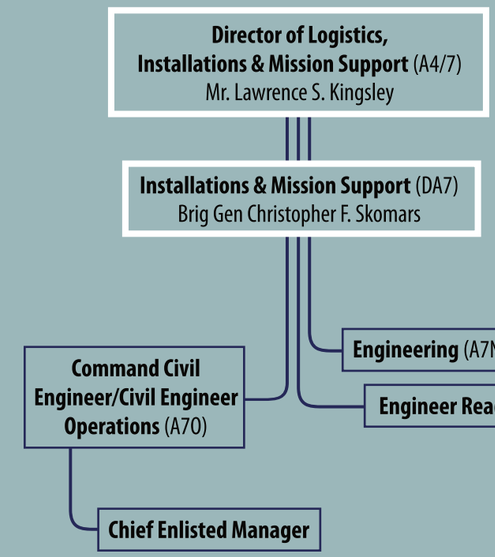


- Completed roof surveys and maintenance training for all five AFGSC bases, ensuring that all 13.7M sq. ft. of roofs will be maintained to industry standards.
- Executed and managed a $1.2M real property installed equipment inventory contract at Whiteman and Minot AFBs, which identified more than 700 new RPIE assets, helping CE Ops flights standardize, rightsize and prioritize their preventive maintenance program.

2014 Statistics

Major Bases	5
Plant Replacement Value	$16B
Buildings	20.7M sq. ft.
Airfield Pavement	7.4M sq. yd.
Housing	5,451 units (100% privatized)
Dorms	3,865 rooms
AFGSC Personnel	
Active Duty	18,982
Reserve	1,045
Guard	640
Civilian	2,384
CE Personnel	
Active Duty	1,275
Reserve	75
Guard	37
Civilian	561
MILCON	2 projects ($14.4M)
SRM	358 projects ($218M)
Facilities Operation	$58M

Airmen from the 341st Civil Engineer Squadron work on replacing underground conduit for a Malmstrom Air Force Base missile alert facility garage Oct. 24. Due to the loss of power, alert teams were unable to store their vehicles out of the elements and had limited access to the facility. (U.S. Air Force/courtesy photo)



AFMC

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

Col. Jeffrey M. Todd
Command Civil Engineer and Deputy Director, Communications, Installations and Mission Support

CMSgt Douglas J. Moore
Civil Engineer Functional Manager

COMMAND MISSION

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

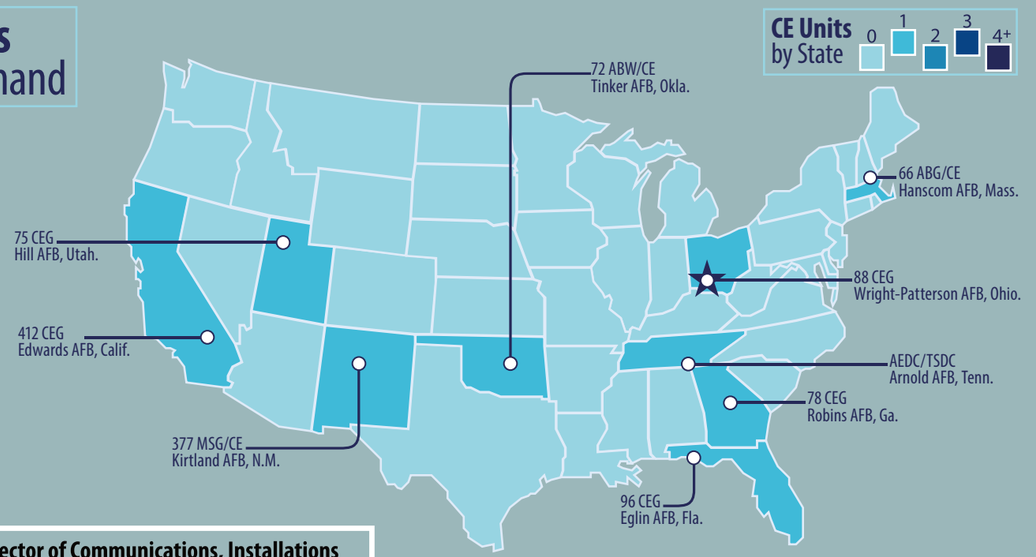
CE RESPONSIBILITIES

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, infrastructure and environmental planning, programming and execution oversight to sustain and enhance AFMC's real property assets. They provide advocacy, guidance, capitol asset expertise and functional oversight of the command's real estate, military family housing, environmental and foreign military sales programs. AFMC's engineers also provide resources to secure their command's operational, acquisition and sustainment mission capabilities and handle all aspects of the financial resources and manpower to support command installations.

SIGNIFICANT ACCOMPLISHMENTS

- Deployed 29 EOD, 28 CE officer/FES/Emergency Management, 68 contractor escorts, and 15 civilian craftsmen in support of AFCENT combat operations.
- Executed four-phase FY14 facility requirements strategy: 1) secured $83M in AFCEC central funding; 2) dedicated. $5M to design for the FY15 program; 3) captured plus-ups of $15M for critical sustainment and $5M for additional design; 4) readied $131M Straddle Program.
- Collaborated with research, development, test and evaluation and depot mission partners, facilitating SAF-level approvals and Congressional notifications for a total of 15 critical construction and repair efforts worth $110.1M
- Secured $10M in design funds to invest in future requirements; worked with contracting and financial management to establish $229M in executable projects.
- Generated strategies and policies encouraging small business awards for $200M O&M construction program (exceeded 10% goal).
- Streamlined Kirtland AFB base maintenance contract to save more than $7M.
- Responded to 6,431 Fire Emergency Services-related emergencies, including 368 off-base responses under mutual aid agreement.
- Directed A6/7 Crisis Action Team operations in support of Exercises VIGILANT THUNDER and GLOBAL THUNDER/ VIGILENT SHIELD 14.
- Responded to 16 disaster contingencies and emergencies (major accident, natural disaster CBRN/WMD).
- Realigned CE core competencies at Air Force Plant 42 (Palmdale, Calif.) from Air Force Life Cycle Management Center to the Air Force Test Center.
- Successfully championed Agile Combat Support Core Function Lead Integrator Base and Protect planning/programming for $2B portfolio.
- Sanitized 51,982 bombing range acres in support of 106 missions for range/area clearances and disposals of unserviceable munitions; more than 22,146 man-hours were expended and 17,811 ordnance items were destroyed.
- Supported 80 U.S. Secret Service VIP taskings, expending 10,566 man-hours aiding and protecting the President, Vice President and other heads of state.
- Responded to 539 EOD emergencies and missions, expending 44,962 man-hours.
- Utilized the BAK-12 and BAK 12/14 aircraft arresting systems to safely stop eight aircraft, potentially saving eight lives and approximately $390M in weapon systems.
- SMSgt Charles Price III, 377th Civil Engineer Squadron, EOD Flight Superintendent, Kirtland AFB NM, selected as the 2014 Air Force Civil Engineer EOD Master Blaster of the Year.

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)

CE Functional Manager

- **Capabilities Integration** (A6C)
- **Plans & Policy** (A6X)
- **Operations & Readiness** (A70)
- **Engineering & Management** (A7N)
- **Security Forces** (A7S)
- **Resources & Integration** (A6/7R)

2014 Statistics

Major Bases	9
Plant Replacement Value	$54.0B
Buildings	130.6M sq. ft.
Airfield Pavement	31.6M sq. yd.
Housing	7,849 units (99% privatized)
Dorms	4,500 rooms

AFMC Personnel

Active Duty	17,963
Reserve	861
Civilian	61,386
Contractor	19,529

CE Personnel

Active Duty	359
Reserve	4
Civilian	3,182
Contractor	2,528

MILCON	2 projects ($27.9M)
SRM	195 projects ($19.5M)
Facilities Operation	$310M

Workers return the P-40 aircraft to its pedestal on the corner of Vandenberg and Marrett streets at Hanscom AFB after the completion of a more than three month-long repair and restoration project by base civil engineers. The model received a thorough sanding and several sheet metal panels were replaced before it was primed and painted. (U.S. Air Force photo by Mark Wyatt/Released)

AFRC

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Chief Enlisted Manager

COMMAND MISSION

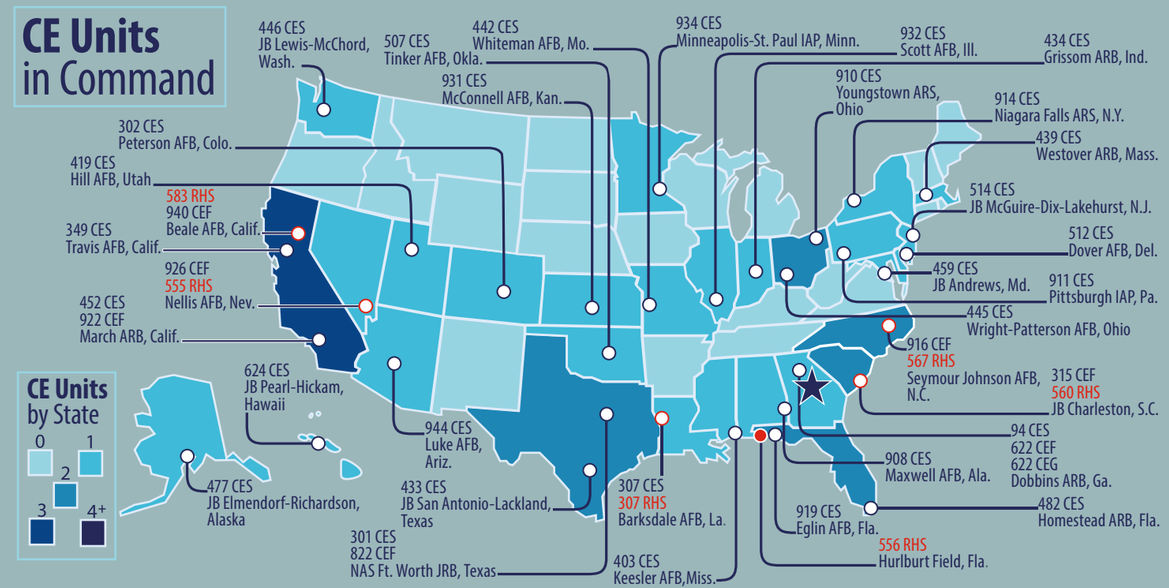
The Air Force Reserve Command's Mission: Provide Combat-Ready Forces to Fly, Fight and Win.

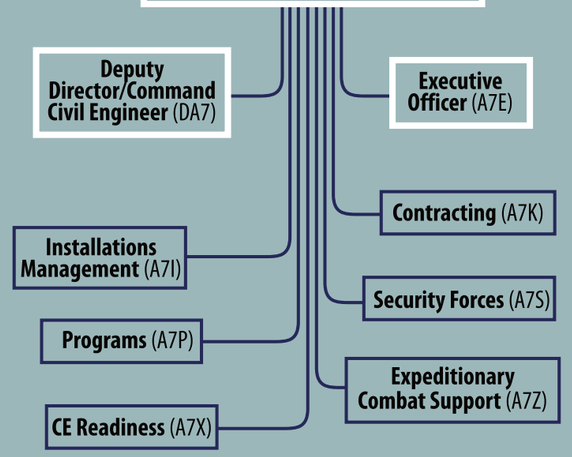
CE RESPONSIBILITIES

Air Force Reserve Civil Engineers directly support combat ready forces by providing basing structure, emergency management, explosive ordnance disposal and fire and emergency services for 69,784 Citizen Airmen worldwide. The Air Force Reserve Command Civil Engineer is responsible for the acquisition, operation, maintenance and repair of a $6.1B physical plant, including 15M square yards of airfield pavements and 13M square feet of building floor space located at nine host and 57 tenant installations and ranges. AFRC CEs are also responsible for managing programs with an annual operating budget valued at $373M. Moreover, AFRC organizes, trains, equips and prepares nearly 5,500 CEs in 44 units for worldwide contingencies.

SIGNIFICANT ACCOMPLISHMENTS

- Deployed 171 personnel (Prime BEEF, Fire Emergency Services, Emergency Management, EOD and IMAs) in support of contingency operations in five countries.
- Completed Facility Operations Capabilities and Utilization Surveys (FOCUS) at 12 AFRC operating locations; surveyed 669 facilities (3.6M sq. ft.), confirmed a space deficit of 292,000 sq. ft. and validated 347 projects worth $317.2M.
- Successfully migrated and demonstrated operability of all geospatial system data to the new Spatial Data Standard, or SDS, framework one year ahead of schedule. This proven operations capability provides valuable lessons learned for total the Air Force.
- Completed environmental compliance assessments at the command's two operational bombing ranges, Claiborne Range and Falcon Range; developed corrective action plan for noted deficiencies and improved management practices to ensure the future mission capability of these critical assets.
- Completed $1.2M utilities privatization electrical capital upgrade to enhance energy security at Dobbins ARB; the upgrade included adding an alternate power feed. This improvement enhanced energy security for the base by providing 100% redundant power for the entire installation.
- Eight Reserve civil engineer squadrons participated in Joint Service Exercise PATRIOT WARRIOR at Young Air Assault Strip, Ft. McCoy, Wis., where 164 Airman accomplished 394 total training hours. Personnel established bare base operations at a dirt airfield supporting over 450 personnel performing the air component integrated airlift operations mission.
- EOD personnel conducted 77 emergency responses; 50 of the responses (2,690 man-hours) supported Defense Support to Civil Authorities, with 1,865 man-hours directly supporting the Department of State.
- Provided Mission Essential Equipment Training, or MEET, and specialty training to 788 Total Force CE personnel; provided expeditionary combat support training to produce battle ready Airmen for combatant commanders.
- Trained 4,199 engineers, Prime BEEF and RED HORSE, through a robust Deployment for Training program, at locations worldwide. DFTs included projects at Clarksdale, Miss.; Gallup, N.M.; Dobbins ARB, Ga.; U.S Air Force Academy, Colo., Bellows AFS, Hawaii; and Andersen AFB, Guam.





2014 Statistics

Major Bases	9
Plant Replacement Value	$6.4B
Buildings	13M sq. ft.
Airfield Pavement	15M sq. yd.

AFRC Personnel

Traditional Reserve	51,461
Air Reserve Technicians	8,738
Active Guard and Reserve	2,749
Individual Mobilization Augmentees	6,836
Civilian	3,773

CE Personnel

Traditional Reserve	4,902
Air Reserve Technician	201
Active Guard Reserve	105
Individual Mobilization Augmentees	423
Active Duty	21
Civilian	783
Contractor	458

MILCON	$10.5M
SRM	330 projects ($163.1M)
Facilities Operation	$112.6M*

*As of Oct. 9, 2014

Senior Master Sgt. Robert Montgomery, heavy equipment superintendent, 163rd Civil Engineering Squadron, California Air National Guard, March Air Reserve Base guides an excavator moving large stones during construction on the Heacock Channel on Sept. 11, 2014. Reservists and guardsmen from March participated in a joint-construction project to repair the erosion damage and sediment accumulation to the Heacock Channel on the east side of base. (U.S. Air Force photo/Senior Airman Russell S. McMillan/Released)

AFSOC

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Col David C. Piech
Director of Installations & Mission Support

CMSgt Jacob P. Dunbar
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 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

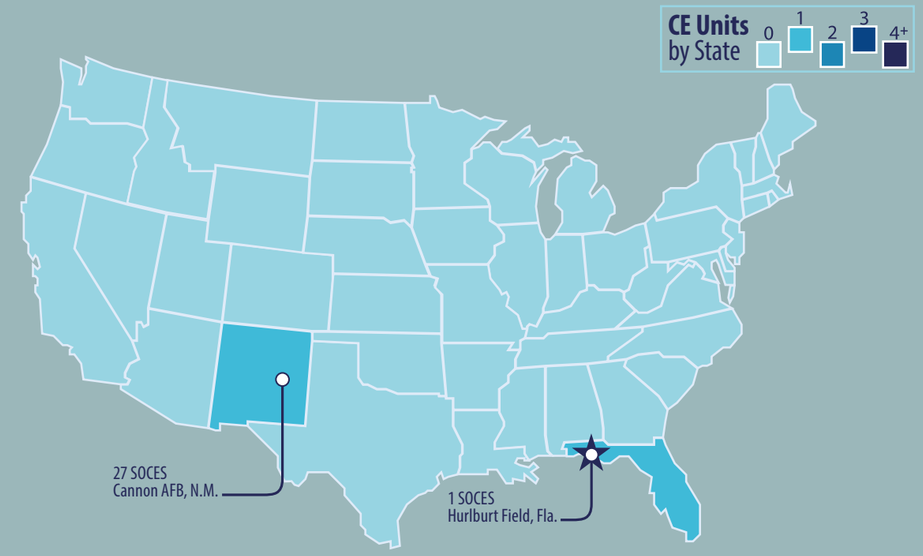
Plans, programs, resources and manages civil engineer processes and resources enabling the air component of U.S. Special Operations Command to execute its mission. Executes $80M in annual appropriations, supports more than 20,000 special operations forces at 35 locations worldwide and advises the AFSOC 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 30 days using AFSOC-unique Air Rapid Response Kits, or ARRKs.

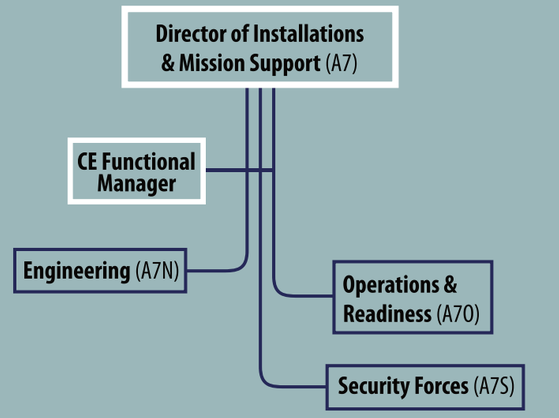
SIGNIFICANT ACCOMPLISHMENTS

- Deployed 116 engineers to 12 locations in Southwest Asia, Africa, Central America and South America in direct support of USSOCOM and Air Force missions.
- Deployed an eight-person J-team to the Joint Special Operations Aviation Detachment supporting Operation INHERENT RESOLVE.
- Conducted AFSOC's first "Engineer Foreign Internal Defense" mission, training engineers in the Belize Defense Force on construction and renovation techniques.
- Supported four AFPAK Hands Airmen in Afghanistan, fostering longterm relationships with the Afghan people, governments and militaries.
- Fielded MAJCOM-wide automated Work Request, Work Clearance and Environmental Assessment capabilities, which streamlined base-level business processes and provided tracking tools for facility managers and the CE squadrons.
- Implemented a web-based S-File map tool that enabled access to space usage data and reports via the GeoBase map.
- Earned a 2014 Federal Energy and Water Management Award for the $4.9M wastewater treatment plant upgrade at Hurlburt Field, which incorporated re-use water into the base irrigation system, reducing annual potable water use by 93M gallons and saving $382,000.
- Supported reconfiguration/expansion of Melrose Air Force Range to accommodate enhanced utilization of 70,000 acres with over $50M of range improvements in direct support of training for integrated SOF air/ground operations employed world-wide.
- Executed $52M for 148 Air Force and SOF operations and maintenance facility projects as well as designs, area development plans, comprehensive range plans, and environmental studies in support of basing options and SRM of facilities and infrastructure.
- Executed $3.1M Energy Monitoring System repair project at Hurlburt Field with anticipated energy conservation increase of 10%.
- Constructed 1,531-square foot addition to 320th Special Tactics Squadron facility for $720,000.
- Completed 16 MILCON projects at $282.3M providing new facilities and infrastructure supporting Air Force Commandos conducting special operations across the globe.
- Finished 13 MILCON projects at $255.3M at Cannon AFB supporting Air Force's largest MILCON program for the AFSOC mission beddown.
- Awarded four MILCON projects worth $109.5M at Cannon AFB to continue the AFSOC mission beddown.
- Continued execution of 45 MILCON projects valued at $673M to provide combat ready forces.

MAJOR COMMANDS

CE Units in Command





Members of the 27 Special Operations Civil Engineer Squadron, Cannon AFB, NM, build a railroad tie bridge to move an MC-130 static display into place. The MC-130, call-sign "Cherry 01", participated in the legendary Son Tay POW raid and is now on display at Cannon AFB. (U.S. Air Force/courtesy photo)

2014 Statistics

Major Bases	2
Plant Replacement Value	$7B
Buildings	9.1M sq. ft.
Airfield Pavement	2.49M sq. yd.
Housing	1,143 units (100% privatized)
Dorms	1,748 rooms

AFSOC Personnel	
Active Duty	14,365
Reserve	1,509
Guard	1,643
Civilian	1,705
Contractor	1,287
CE Personnel	
Active Duty	519
Reserve	122
Guard	154
Civilian	199
Contractor	88

MILCON	6 projects ($118.8M)
SRM	128 projects ($54.3M)*
Facilities Operation	$11.73M

**Excludes $7.4M for 20 MFP-11 funded projects*

AFSPC

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719-554-8178
DSN: 692-8178

Col Scott Jarvis
Deputy Director for Installations and Mission Support and Command Civil Engineer

CMSgt Tamra Olson
CE Functional Manager

COMMAND MISSION

Assure space and cyberspace capabilities by providing secure, comprehensive logistics, installation and mission support for America's warfighters and the nation.

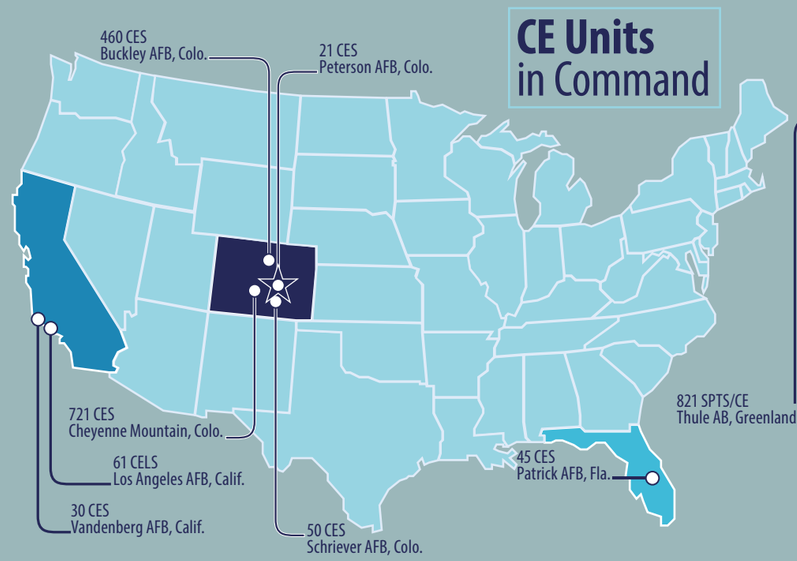
CE RESPONSIBILITIES

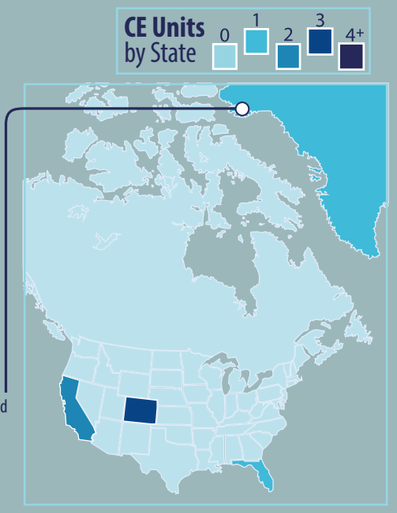
Space Command's A4/7 Directorate provides policy, guidance, resources and oversight to design, construct, renovate, operate, sustain and repair facilities and infrastructure to support the command's space and cyberspace missions and capabilities.

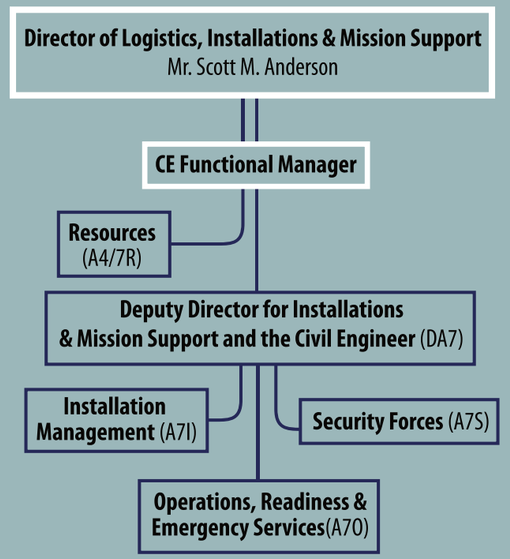
SIGNIFICANT ACCOMPLISHMENTS

- Completed removal of 7,200 tons of landslide debris and $3M in interim repairs to stabilize the north portal area at Cheyenne Mountain AFS, then orchestrated and awarded a $6M design-build contract to complete final repairs and improve ability to withstand future landslides.
- Awarded Phase 1 construction ($13.8M) for the Joint Space Operations Center consolidation and advanced Phase 2 design ($63M) through 35%.
- Consolidated space control squadrons on Peterson AFB, saves approximately $7M over 25-year lifecycle.
- Developed beddown solutions and awarded designs for new Cyber Mission Forces (one group and six squadrons) at Joint Base San Antonio and Scott AFB.
- Reduced overall AFSPC consumption of energy 29% and water 46% from established baselines, exceeding the Federal goals by 2% and 34%, respectively.
- Developed first-ever Air Force multi-facility energy savings performance contract, or ESPC, which identifies energy savings for more than 40 facilities on Peterson AFB with three more AFSPC installations in the AFCEC queue for execution.
- Planned, coordinated and facilitated the first-ever Air Force Wildland Firefighting Symposium, bringing together multiple Air Force, Army, federal, state and local agencies; identified gaps and developed comprehensive wildland fire policy and guidance.
- Awarded the Thule AB "M Plant" cooling system replacement that will annually save 40,000 MBTU and $870K.
- Planned, coordinated and executed Blue Card Incident Command train-the-trainer course; certified space wing level incident commanders, filling a critical training gap. Space wings are now able to train future ICs at zero cost.
- Executed a $6.6M command-wide exterior LED and xeriscaping strategic sourcing initiative, with annual savings of $1M in lighting and 139M gal of water.
- Awarded the $23.5M Clear AFS commercial power tie-in project that will divest 97K square feet of the combined heat/power plant and save 697B BTUs per year, enabling Air Force to reduce overall energy consumption by 1.5%.
- Executed 388 centralized and decentralized infrastructure projects valued at $245.1M to sustain and modernize the fire suppression, water, electrical, HVAC, base pavements and airfield infrastructure at 16 AFSPC locations.
- Won the DoD Emergency Manager of the Year Award (Mr. James E. Haleski, 30 CES).
- Won the Department of Energy Federal Energy Management Program (FEMP) award in the Programs category (HQ AFSPC and 21 CES).

MAJOR COMMANDS







2014 Statistics

Major Bases	7
Launch Ranges	2
Stations	9
Plant Replacement Value	$15.7B
Buildings	27M sq. ft.
Airfield Pavement	4.1M sq. yd.
Housing	3,504 units (100% privatized)
Dorms	2,562 rooms

AFSPC Personnel

Active Duty	12,746
Reserve/Guard	9,049
Civilians	8,169
Contractors	9,107

CE Personnel

Active Duty	754
Reserve/Guard	391
Civilians	1,091
Contractors	1,573

MILCON	4 projects ($101M)
SRM	388 projects ($245.1M)
Facilities Operation	$130.3M

Staff Sgt. James Ruiz, 30th Civil Engineer Squadron explosive ordnance disposal specialist, receives assistance donning his EOD 9 bomb suit Dec. 3, 2014, Vandenberg Air Force Base, Calif. The EOD 9 bomb suit is designed to withstand the pressure released from an explosive device and shrapnel produced. (U.S. Air Force photo by Staff Sgt. Jim Araos/Released)

AMC

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618-229-0738
DSN 779-0738

Mr. John Bonapart
Director of Installations and Mission Support

Col. Mark H. McCloud
Deputy Director of Installations and Mission Support & Command Civil Engineer

CMSgt Thomas Shumpert, Jr.
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.

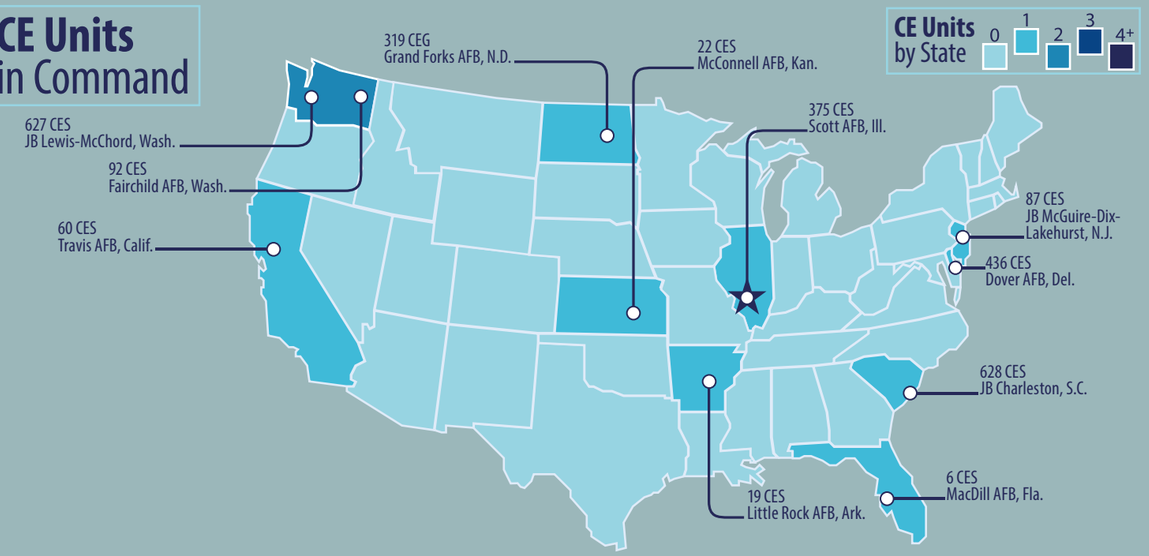
CE RESPONSIBILITIES

Lead AMC's expeditionary combat support and garrison mission support group activities, including Civil Engineering, 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, and installation excellence programs at 24 CONUS and overseas en route sites.

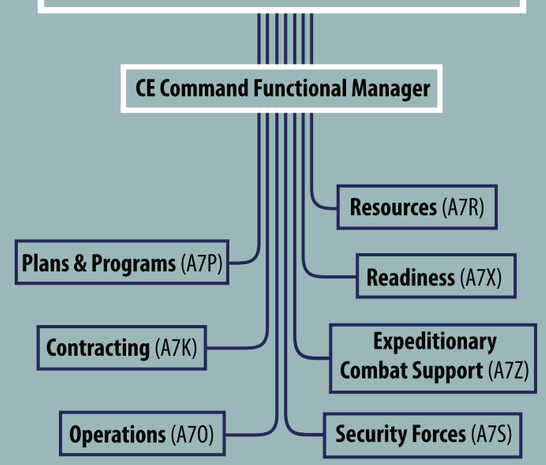
SIGNIFICANT ACCOMPLISHMENTS

- JB McGuire-Dix-Lakehurst captured the Air Force's's Best Large CE Unit Award for 2013.
- Awarded $178K in MILCON projects to begin beddown of the first operational KC-46A Pegasus tanker units at McConnell AFB.
- Reached 97% for AMC housing renovation/replacement through the housing privatization initiative; McConnell AFB's 364 units are in the initial development period to undergo construction.
- Built the MAJCOM Comprehensive Asset Management Plan under AMC's cross-functional Asset Management Integrated Working Group, and prioritized and obtained AMC/CV approval of 439 SRM requirements totaling $730M.
- Funded 277 SRM requirements from FY15/16 at with end-of-year monies.Led the Environmental impact analysis process coordination between the AFCEC Environmental Planning Function, the MAJCOM weapon-system proponent and all other stakeholders to complete the Environmental Impact Statement and Record of Decision for beddown of the first two KC-46A bases in only 12 months.
- AMC continued to be a leader in energy and water intensity reduction, exceeding it's FY14 Energy Independence and Security Act energy and water reduction goals by rating an estimated 27% reduction from FY03 energy baseline and 29% reduction from FY07 water baselines.
- Supported execution of sustainable infrastructure assessments, including audits for energy, space, infrastructure and sustainability, covering 49M square feet at Dover, Scott, MacDill, and Fairchild AFBs and Joint Bases Charleston and McGuire-Dix-Lakehurst.
- Conducted infrastructure assessments at JB Charleston, JB McGuire-Dix-Lakehurst and Fairchild AFB; command-wide, assessments have identified 210 critical projects valued at more than $297M.
- Managed the command's long-term runway construction program with projects awarded at Dover AFB ($98.3M) and Little Rock AFB ($121.2M); when completed, all of AMC's primary runways will have been reconstructed.
- Supported the Utilities Privatization Program, participating in source selection activities at Grand Forks, McConnell, Little Rock, and Travis AFBs with FY15/16 award decisions.
- Completed Utilities Privatization transition activities for the Dover Water system with full operations and maintenance assumed by the system owner.
- Responded to 7,680 Fire Emergency Service-related events, including 442 fires; 2,101 medical emergencies; and 5,137 aircraft, structural, hazardous materials, rescue and public service calls.
- Wrote firefighting standards used by C-130 Modular Airborne Firefighting Systems in support of NORTHCOM wildland firefighting response.
- Hosted seven DOD Fire Academy Mobile Training Team courses, certifying 108 students.
- Executed all-hazards training at JB McGuire-Dix-Lakehurst, providing 38 AMC Emergency Managers with 10 days of advanced Emergency Management and CBRN/All-Hazards Training, and completing and documenting 100 individual training requirements.
- SMSgt Mark Cornell from the HQ AMC/A7X Staff was selected as the Greater St. Louis Public Safety Federal Employee of the Year.
- A1C Logan Brouse from Dover was selected as the Federal Military Scholarship Award winner by the International Association of Fire Chiefs.

CE Units in Command



- Mr. Cardell Pickens from McConnell AFB was selected as the Air Force Civilian Firefighter of the Year.
- MSgt Angus Adolpho was selected as the North Dakota American Legion Firefighter of the Year.



2014 Statistics

Major Bases	10
Plant Replacement Value	$29.2B
Buildings	71.1M sq. ft.
Airfield Pavement	16.9M sq. yd.
Housing	9,672 units (100% privatized)
Dorms	9,269 rooms*
AMC Personnel	
Active Duty	42,647
Reserve	32,655
Guard	35,274
Civilian	7,954
CE personnel	
Active Duty	2,184
Reserve	2,155
Guard	3,208
Civilian	1,264
MILCON	7 projects ($178.2M)
SRMD	539 projects ($599.7M)
TWCF	47 projects ($24.6M)
Facilities Operation	$239M

*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. 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 800 ANG civil engineers in support of AEF-directed taskings.
- Simultaneously, deployed 2,780 Guardsmen and women from 52 different CE units worldwide to 27 separate locations.
- In August and September, 154th CES supported PACOM Humanitarian Assistance, Civil Military Operations Engineering Civic Action Program tasking in Papua New Guinea, working side-by-side with New Guinean DefenseForces and Royal Australian Army and Air Forces the combined team built two 1,600-square foot dormitories for Togoba school students.
- In August, 200 RHS responded to Lucas County, Ohio and set-up and operated three reverse osmosis water purification units to provide potable drinking water to city populace after water treatment plant had problems; produced 57,000 gallons in less than three days to support more than 500,000 residents.

MAJOR COMMANDS

Director of Installations & Mission Support (NGB/A7)
Associate Director of Installations & Mission Support (NGB/A7) Mr. William Albro

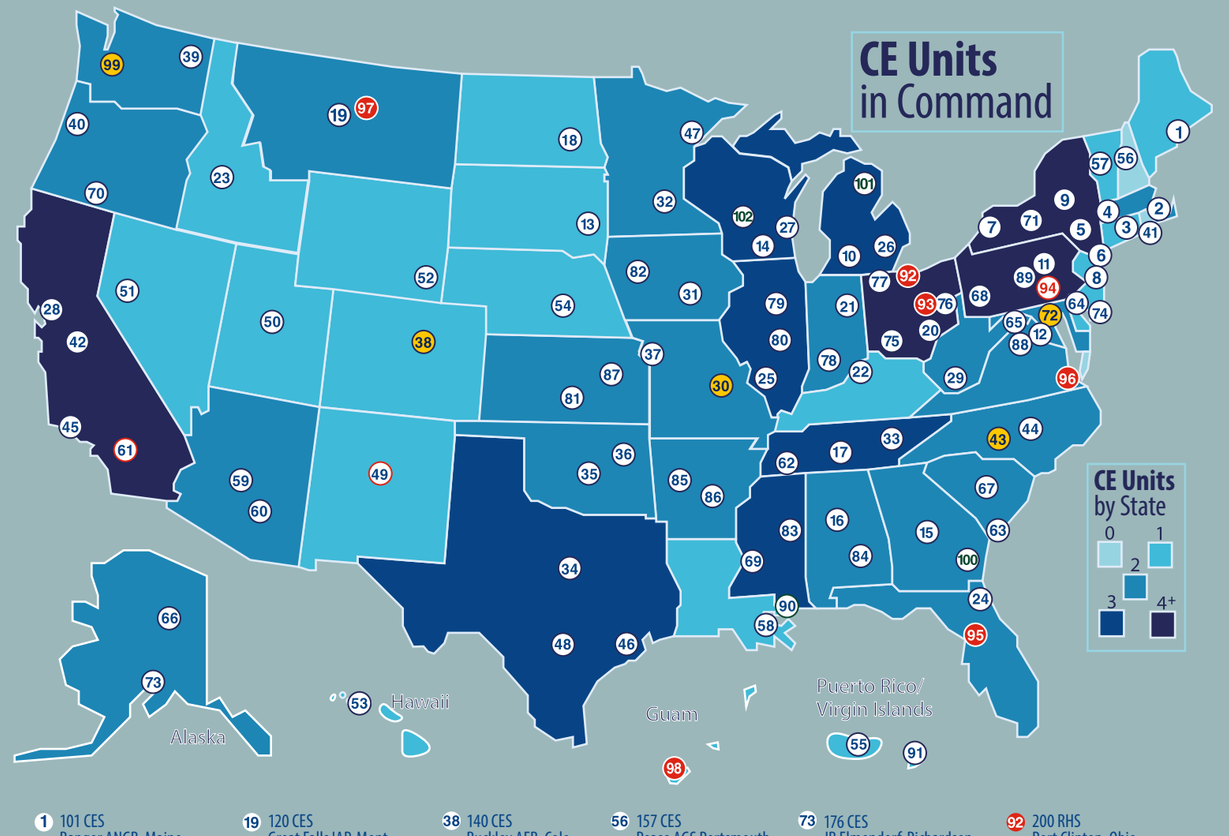
Chief Enlisted Advisor

- **Resources** (A7R)
- **Readiness** (A7X)
- **Security Forces** (A7S)
- **Operations** (A70)
- **Asset Management** (A7A)

2014 Statistics

Major Bases	3
Plant Replacement Value	$15.8B
Buildings	49.9M sq. ft.
Airfield Pavement	14.8M sq. yd.
ANG Personnel	
Active Guard Reserve	14,734
Drill Status Guard	90,666
Dual Status Technician	21,875
Civilian	350
CE Personnel	
Active Guard Reserve	552
Drill Status Guard	8,105
Dual Status Technician	476
Civilian	88
MILCON	11 projects ($78.9M)
SRM	165 projects ($22.1M)
Facilities Operation	$2.65M

Airmen with the 188th CES deconstruct a portable latrine during a bivouac training exercise held at Ebbing ANGB, Fort Smith, Ark. (U.S. Air National Guard photo by Staff Sgt. Hannah Landeros/Released)



1 101 CES Bangor ANGB, Maine
2 102 CES Otis ANGB, Mass.
3 103 CES Bradley IAP, Conn.
4 104 CES Barnes ANGB, Mass.
5 105 CES Stewart IAP, N.Y.
6 106 CES Gabreski AP, 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 W.K. Kellogg AP, Mich.
11 111 MSG Horsham AGS, Pa.
12 113 CES JB Andrews Naval Facility, Washington, Md.
13 114 CES Joe Foss Field, S.D.
14 115 CES Truax Field, Wis.
15 116 CES Robins AFB, Ga.
16 117 CES Birmingham IAP, Ala.
17 118 CES Nashville, Tenn.
18 119 CES Hector Field, N.D.
18 119 RTS Hector Field, N.D.
19 120 CES Great Falls IAP, Mont.
20 121 CES Columbus IAP, Ohio
21 122 CES Ft. Wayne IAP, Ind.
22 123 CES Louisville IAP, Ky.
23 124 CES Gowen Field, Idaho
24 125 CES Jacksonville IAP, Fla.
25 126 CES Scott AFB, Ill.
26 127 CES Selfridge ANGB, Mich.
27 128 CES General Mitchell IAP, Wis.
28 129 CES Moffett Federal Air Field, Calif.
29 130 CES Charleston ANGB, W.V.
30 131 CES Lambert St. Louis IAP, Mo.
31 132 CES Des Moines IAP, Iowa
32 133 CES Minneapolis-St. Paul IAP, Minn.
33 134 CES McGhee/Tyson AP, Tenn.
34 136 CES Ft. Worth, Texas
35 137 CES Oklahoma City, Okla.
36 138 CES Tulsa, Okla.
37 139 CES St. Joseph, Mo.
38 140 CES Buckley AFB, Colo.
39 141 CES Fairchild AFB, Wash.
40 142 CES Portland IAP, Ore.
41 143 CES Quonset State AP, R.I.
42 144 CES Fresno IAP, Calif.
43 145 CES Charlotte IAP, N.C.
44 145 RTS Stanley County, N.C.
45 146 CES Channel Islands AGS, Calif.
46 147 CES Ellington Field JRB, Texas
47 148 CES Duluth IAP, Minn.
48 149 CES JB San Antonio - Lackland, Texas
49 150 CES Kirtland AFB, N.M.
50 151 CES Salt Lake City IAP, Utah
51 152 CES Reno IAP, Nev.
52 153 CES Cheyenne MAP, Wyo.
53 154 CES JB Pearl Harbor-Hickam, Hawaii
54 155 CES Lincoln, Neb.
55 156 CES Luis Muñiz Marin IAP, P.R.
56 157 CES Pease AGS Portsmouth IAP, N.H.
57 158 CES Burlington IAP, Vt.
58 159 CES NAS New Orleans, La.
59 161 CES Phoenix Sky Harbor IAP, Ariz.
60 162 CES Tucson IAP, Ariz.
61 163 CES March ARB, Calif.
61 163 RTS March ARB, Calif.
62 164 CES Memphis IAP, Tenn.
63 165 CES Savannah/Hilton Head IAP, Ga.
64 166 CES New Castle County ANGB, Del.
65 167 CES Martinsburg, W.V.
66 168 MSG Eielson AFB, Alaska
67 169 CES McEntire Joint NGB, S.C.
68 171 CES Pittsburgh IAP, Pa.
69 172 CES Jackson IAP, Miss.
70 173 CES Klamath Falls AP, Ore.
71 174 CES Syracuse Hancock IAP, N.Y.
72 175 CES Martin State AP, Md.
73 176 CES JB Elmendorf-Richardson, Alaska
74 177 CES Atlantic City IAP, N.J.
75 178 CES Springfield-Beckley MAP, Ohio
76 179 CES Mansfield Lahm RAP, Ohio
77 180 CES Toledo Express AP, Ohio
78 181 CES Terre Haute, Ind.
79 182 CES Peoria IAP, Ill.
80 183 CES Capitol AP, Ill.
81 184 CES McConnell AFB, Kan.
82 185 CES Sioux City AP, Iowa
83 186 CES Key Field, Miss.
84 187 CES Montgomery RAP, Ala.
85 188 CES Fort Smith RAP, Ark.
85 188 RHTC Fort Smith RAP, Ark.
86 189 CES Little Rock AFB, Ark.
87 190 CES Forbes AFB, Kan.
88 192 MSG JB Langley-Eustis, Va.
89 193 SOCES Harrisburg IAP, Pa.
90 209 CES Gulfport, Miss.
91 285 CES Christianhead, Virgin Islands
92 200 RHS Port Clinton, Ohio
93 200 RHS Det 1 Mansfield, Ohio
94 201 RHS Fort Indiantown Gap, Pa.
94 REOTS Fort Indiantown Gap, Pa.
11 201 RHS Det 1 Horsham AGS, Pa.
95 202 RHS Camp Blanding, Fla.
96 203 RHS Virginia Beach, Va.
49 210 RHS Kirtland AFB, N.M.
97 219 RHS Malmstrom AFB, Mont.
98 254 RHS Andersen AFB, Guam
30 231 CEF S-Team Jefferson Barracks, Mo.
72 235 CEF S-Team Martin State AP, Md.
38 240 CEF S-Team Buckley AFB, Colo.
43 245 CEF S-Team Charlotte IAP, N.C.
99 248 CEF S-Team Camp Murray, Wash.
100 CRTC GA Garden City, Ga.
101 CRTC MI Alpena, Mich.
90 CRTC MS Gulfport, Miss.
102 CRTC WI Camp Douglas, Wis.

PACAF

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Col Michael A. Addison, Jr.
Director, Installations and Mission Support

CMSgt David Linde
Chief Enlisted Manager

COMMAND MISSION

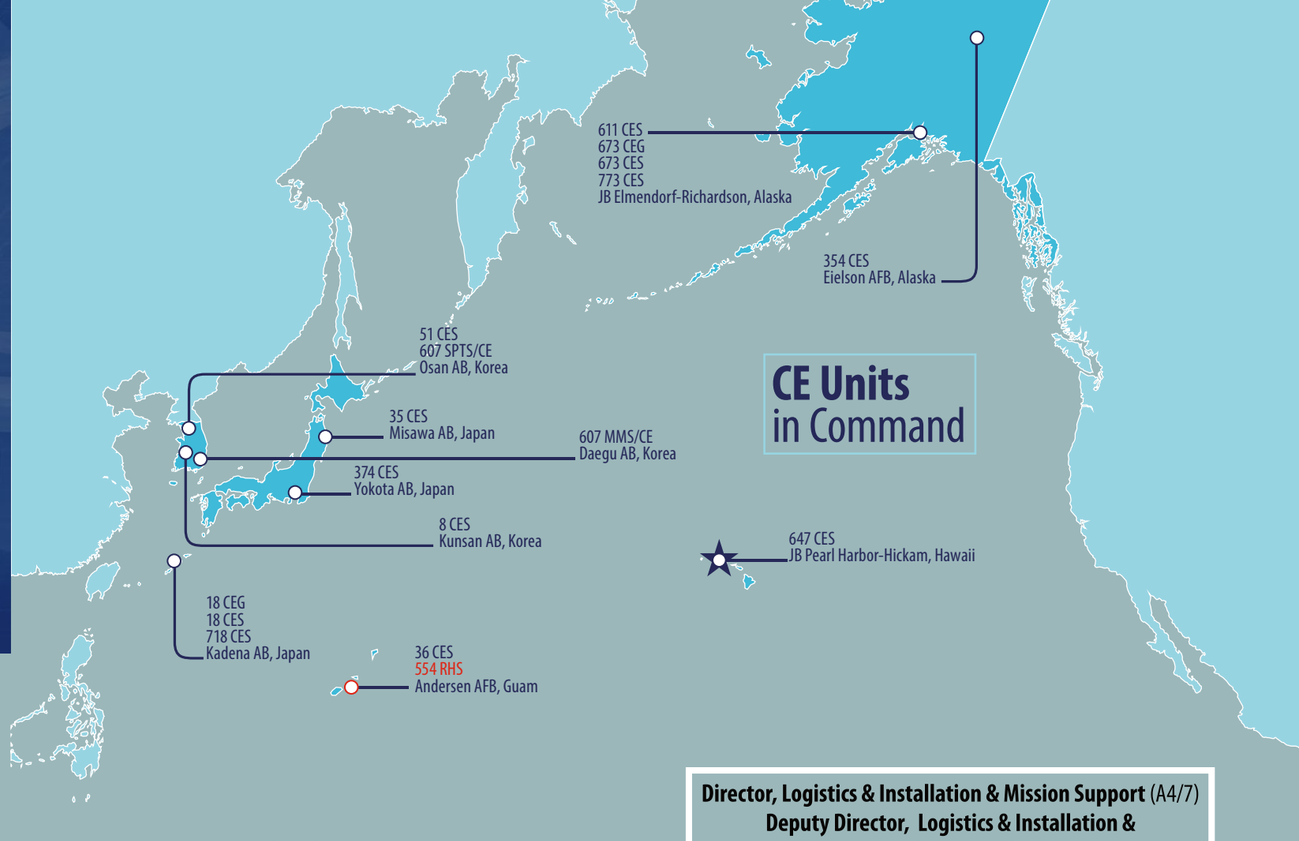
PACAF delivers rapid and precise air, space and cyberspace capabilities to protect and defend the United States, its territories, interests, allies and the Compact of Free Association states (e.g., Micronesia, Marshall Islands and Palau). The command provides integrated air and missile warning and defense; promotes interoperability throughout its area of responsibility; maintains strategic access and freedom of movement across all domains; and is postured to respond across the full spectrum of military contingencies in order to restore Asia-Pacific security.

CE RESPONSIBILITIES

The PACAF Command Engineer supports seven Wings, three numbered Air Forces and three joint bases, consisting of 47,000 personnel throughout PACAF. The directorate manages policy, resources and execution of emergency services, base development, readiness, environmental and housing programs for $42.3B in infrastructure and $10B in contracts. As the C-MAJCOM for U.S. Pacific Command, PACAF supports combatant commander requirements across the range of military operations and at all levels of war. Specifically, the PACAF A4/7 staff serves as the primary advisor to the COMAFFOR for engineer, fire, explosive ordnance disposal, emergency management, antiterrorism, host-nation engagement, security and force protection.

SIGNIFICANT ACCOMPLISHMENTS

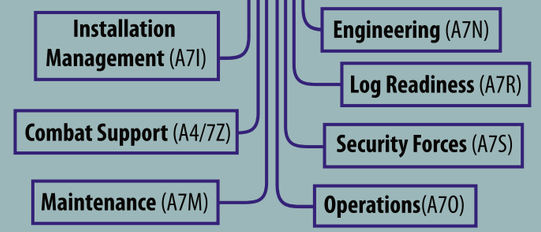
- PACAF Engineers deployed to the Philippines for Operation DAMAYAN supporting humanitarian assistance and disaster relief efforts in the aftermath of Typhoon Haiyan, one of the strongest tropical cyclones ever recorded. The team performed expedient runway and base assessments facilitating the evacuation of more than 6,000 civilians and delivery of 1.5M lbs. of relief supplies.
- Executed 15 subject matter expert exchanges with 23 countries; enhancing U.S./partner nation interoperability on various tactics, techniques and procedures; partnered with Philippine Air Force engineers to build a new school and with the Papua New Guinea Defense Force engineers to construct a 400-student dormitory.
- Led a 26-Airmen/Palau apprentice civic action team in Palau, completing $400K in community construction projects and technical assists.
- Crafted an $81M POL equipment dispersal plan which enabled combat operations in an anti-access/area denial environment.
- Emergency Managers responded to 14 events, activating the EOC, responding to HAZMAT incidents, and supporting search and rescue/recovery operations.
- EOD performed 214 missions totaling 24K man-hours; destroyed 24K munitions during 88 clearance/disposal operations; participated in 19 Joint POW/MIA Accounting Command field missions repatriating eight MIAs; and conducted 26 VIP protective missions.
- FES extinguished 28 reportable fires limiting fire damage to less than $200K (PACAF's nine fire departments (657 firefighters) protect more than $42B in infrastructure.
- Awarded $42.2M in military family housing MILCON to improve 193K linear feet of MFH utility systems at Misawa and Kadena ABs, as well as $141M in MFH O&M.
- Iinvested $53M in unaccompanied housing funding to achieve the OSD goal of 90% adequate dorms (includes award of $37M, 168-room MILCON project at Eielson AFB, $10M in furnishings, and overall improvements affecting 15K rooms).
- Managed 13 DLA Fuels MILCON projects ($221M); four host-nation projects ($79M); and 54 SRM projects ($22M). Projects in construction include: Misawa hydrant system ($29M), Andersen fuel pipeline ($68M), Eielson rail line ($15M), and Osan hydrant fuel system ($21M).
- Secured $215M in MILCON funding for six resiliency and two Pacific regional training center projects at Andersen AFB (maintains the 2018 FOC goal) and one C-17 hangar project at JB Pearl Harbor-Hickam.
- Awarded $115M for 177 sustainment (<$5M) projects; secured $116M for 314 R&M projects (with 18% of the Air Force's centralized program ranked third of 11 MAJCOMs); managed more than $800M in SRM requirement.
- Awarded $17M in energy/water conservation projects achieving a 138,000-Mbtu and 0.6 Mgal reductions; increased onsite renewable energy generation to 6.5% (exceeds FY14 goal by 3%).
- Executed/provided $800K in critical on-site vendor training courses for 363 airmen in five AFSCs.



2014 Statistics

Major Bases	9*
Plant Replacement Value	$42.8B
Buildings	70.5M sq. ft.
Airfield Pavement	18.6M sq. yd.
Housing	19,516 units** (34% privatized)
Dorms	15,482 rooms***
PACAF Personnel	
Active Duty	29,662
Reserve	1,283
Guard	4,805
Civilian	8,343
Contractor	3,317
CE Personnel	
Active Duty	2,762
Reserve	243
Guard	282
Civilian	2,587
Contractor	1,847
MILCON	6 projects ($215M)
SRM	518 projects ($231M)
Facilities Operation	$197M

*Includes joint bases
**Inventory excludes Andersen
***Inventory excludes Andersen and Hickam



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Col Stephen E. Shea
Deputy Director of Logistics, Installations, & Mission Support and the USAFE/AFAFRICA Civil Engineer

CMSgt Gary Souder
Chief Enlisted Manager

COMMAND MISSION

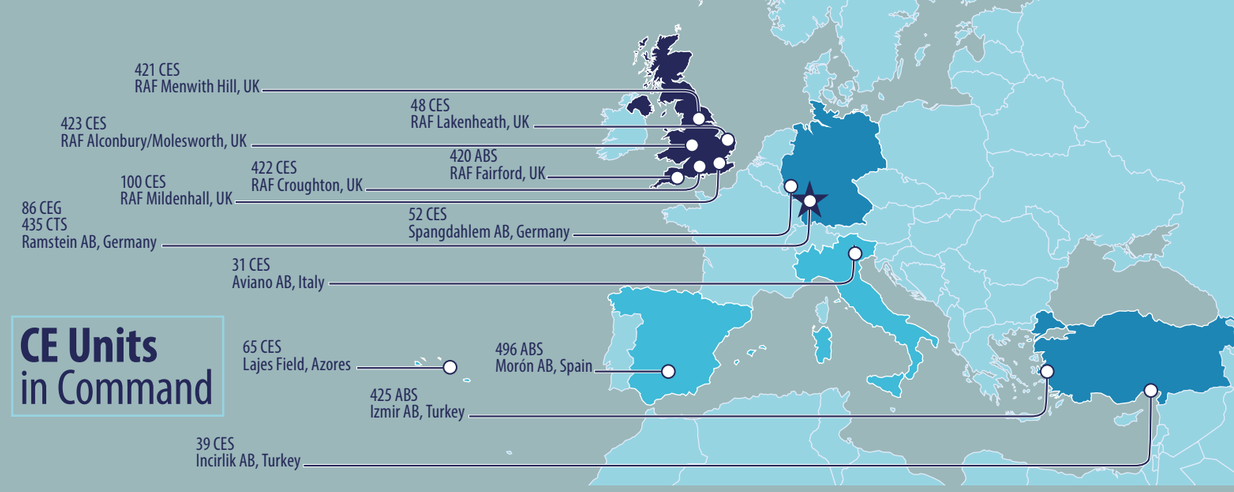
Executes the EUCOM and AFRICOM missions with forward-based air power to provide forces for global operations, ensure strategic access, assure allies, deter aggression, and build partnerships.

CE RESPONSIBILITIES

USAFE/AFAFRICA/A7 provides civil engineer program expertise for senior U.S. Air Forces in Europe - Air Forces Africa leaders, and oversight, policy and guidance to USAFE-AFAFRICA civil engineers. A7 engineers provide expertise with oversight, policy and guidance in managing natural and built assets and their associated performance, risk and expenditures to a common level of service in support of missions and organizational goals. They also provide expeditionary and contingency engineering operational support and planning to enable combat, humanitarian, and building-partnership operations.

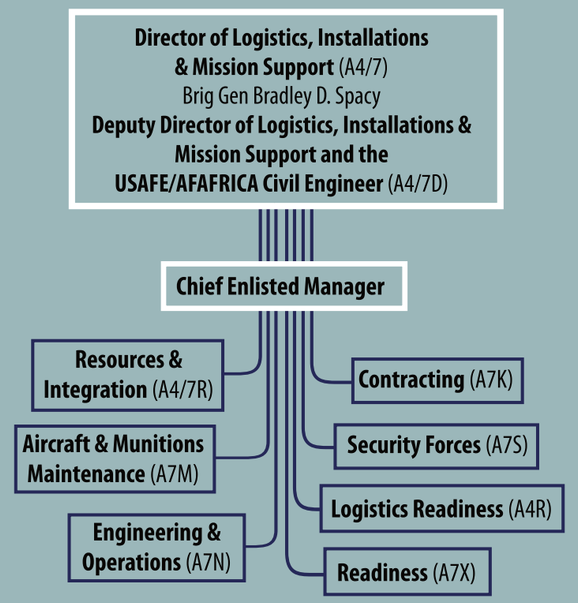
SIGNIFICANT ACCOMPLISHMENTS

- Deployed 726 combat trained CEs to three COCOMS across three continents.
- Worked with Air Force Petroleum Agency, DLA and AFCEC to program and execute $120M in fuel projects; initiated and managed update of the USAFE/NATO Airfield Standard Design for Jet Fuel Storage and Dispensing Systems.
- Validated and received funds for 12 energy conservation projects ($4.2M) with annual estimated savings of $900K.
- Enforced revisions to AFI 90-2001, applying USAFE-specific encroachment management tools based on international standards and SOFA agreements and leading to a more detailed USAFE hybrid ICEMAP matrix.
- Developed facility requirements, funding strategies, cost estimates, construction timelines and milestones for 20 MILCON projects at seven installations for approximately $400M related to European Infrastructure Consolidation.
- Collaborated with eight host nations to identify 190 projects ($660M) in infrastructure requirements to support HQ NATO's development of new Air-Related Capability Packages; ensures USAFE-AFAFRICA installations are postured to benefit from Alliance funding.
- Initiated command-wide military family housing Resident Energy Efficiency Program, with participants cutting electricity consumption 28.8% and gas consumption 29.5% (annual savings of $554K in MFH utility costs at test base).
- Accomplished expeditionary site surveys for 26 airfields in 15 countries throughout Europe and Africa; identified contingency operating locations and evaluated their capabilities to support future air operations.
- Crafted beddown plans in two countries supporting AFRICOM intelligence, surveillance and reconnaissance and crisis response operations ($87.5M supporting beddown of 22 aircraft and 400 personnel); executed $5.4M contract for airfield repair of civilian airport to enable force flow and base construction.
- Developed and executed site expansion plans in 2 countries; 5 projects/$1.9M in construction with $9.7M in equipment purchases supporting expanded ISR operations in East and West Africa.
- Managed $2.5M humanitarian assistance construction program (23 projects in 14 European and African countries).
- Deployed first-ever emergency services personnel to Mihail Kogalnicea, Romania; established an office of emergency management and Fire Emergency Services flight for both an enroute base supporting Operation ENDURING FREEDOM and ISR support in AFAFRICA area of operations.



CE Units in Command

- Partnered with PACOM to provide EOD expertise during four Joint POW/MIA Accounting Command missions in Europe; recovered the remains of nine personnel from three sites and scouted 11 others for future missions.
- Provided USAFE EOD support to NATO's Baltic Air Policing in both Lithuania and Iceland (more than 500 sorties and 1,000 flying hours).
- Trained Italian EOD allies, helping stand up first national course; provided critical support to Italian authorities during an incident involving a WW2-era unexploded bomb; garnered 1M Euros in savings for the host nation.
- Assisted Canadian Air Force Fire Emergency Services Division during European multi-national exercise by providing fire fighting vehicles, equipment and training.



2014 Statistics

Major Bases:	7
Plant replacement value	$35.8B
Buildings	52M sq. ft.
Airfield pavement	12.4M sq. yd.
Housing*	5,575 (0% privatized units)
Dorms	6,316 rooms

USAFE Personnel

Active Duty	29,539*
Guard/Reserve	525
Civilian	10,146

CE Personnel

Military	1,746
Civilian (U.S.)	120
Civilian (Local)	1,915
Contractor	982

MILCON	4 projects ($8.3M)
SRM	531 projects ($170.7M)
Facilities Operation	$99.5M

*Includes 5,765 active duty personnel from tenant.

AFCEC

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Mr. Joe Sciabica
Director

Dr. Marilyn Croach
Deputy Director

Col David Higdon
Deputy Director - Tyndall

MISSION

The Air Force Civil Engineer Center reached final operating capability on Oct. 1, 2014. AFCEC's mission is to provide Civil Engineering services and enterprise lifecycle leadership to Air Force installations that enable the warfighter.

Headquartered at Joint Base San Antonio-Lackland, Texas, with Detachment 1 located at Tyndall AFB, Fla., AFCEC's areas of expertise include facility investment planning, design and construction, operations support, real property management, energy support, environmental compliance and restoration, readiness and emergency management, and audit assertions, acquisition and program management. The agency has more than 1,300 personnel and conducts operations at more than 75 locations worldwide.

FIELD OPERATING AGENCIES

Director Mr. Joe Sciabica (CL)
Deputy Director Dr. Marilyn Croach (DD)
Deputy Director - Tyndall Col Anthony Higdon (DD)

- **Chief Financial Officer** (CR)
- **Director of Staff** (DS)
- **Staff Judge Advocate** (JA)
- **Facility Engineering Directorate** (CF)
- **Planning and Integration Directorate** (CP)
- **Installations Directorate** (CI)
- **Energy Directorate** (CN)
- **Operations Directorate** (CO)
- **Environmental Directorate** (CZ)
- **Readiness Directorate** (CX)

Facility Engineering (CF)

- Achieved a 100 percent award rate for SRM and dorm projects, awarding $898.5M across 691 projects.
- Awarded 29 President's Budget MILCON projects totaling $493.7M, and six projects totaling $167.1M in other PB programs.
- Of Air Force buildings completed in FY14, 81% met or exceeded all Federal, OSD, and Air Force sustainability and LEED certification requirements, and achieved a 98% overall average Federal sustainability compliance score.
- Executed 13 FY14 MILCON projects supporting the KC-46A first main operating base and formal training unit beddowns valued at $250M.
- Managed the design and construction of eight MILCON projects at Luke and Hill AFBs worth a combined $54.3M in support of the F-35 beddown and the F-35 MOB #1.
- Awarded medical MILCON projects at Cannon and Holloman AFBs and JB San Antonio-Ft. Sam Houston for a combined $104M, continued construction of 11 medical MILCON projects totaling $825M, and continued construction management of the $120.6M Ambulatory Care Center, Phase 3 at JBSA – Lackland.
- Completed construction of the Design-Build Institute of America award-winning Air Force Technical Applications Center ($158M) at Patrick AFB.
- Executed construction of the $43.6M Center for Character and Leadership Development, an iconic project in the historic Cadet Area of the US Air Force Academy.
- Continued construction management of the $564M USSTRATCOM facility at Offutt AFB.
- Executed contingency construction of over $7B in 8 countries, 490 projects in the CENTCOM AOR.
- Executed 90 projects ($1.8B) for the Combined Security Training Command-Afghanistan Security Force Program and 17 MILCON projects ($600M) for Bastion Airfield in Afghanistan.
- Contingency Construction is completing the last projects in Afghanistan and provided beddown for more than 9,000 troops and 62,000 Afghan National Security Forces.
- Executed more than 150 projects worth $322M worldwide for the Defense Logistics Agency-Energy.

Installations Directorate (CI)

- Achieved 96% BRAC property transfer (84,700 of 88,243 acres) to local communities, including 178 acres at Chanute AFB; completed the 33rd and 34th whole base transfers (former and Griffiss AFB and AFRL Mesa).
- Led effort to ensure environmental cleanups meet requirements; response complete at 4,515 of 5,288 sites (85%); projected 97% in RC by FY16, exceeding OSD goal.
- The Portfolio Management Division conducted more than 90 management review committee meetings and annual site visits at 27 bases; over 765 stakeholders took HP training program.
- Issued notices to proceed for 75 ABW Enhanced Use Lease, providing authority for developer to begin construction in support of the Falcon Hill Aerospace Park at Hill AFB.
- Managed the Air Force EUL/Value Based Transaction portfolio (10 EULs and two VBTs); as of June had received $72.6M existing EULs/VBTs, $4.2M above projections.
- Continued Real Property Support Visits to review, and analyze real property; to date, the team has visited 48 installations and reviewed more than 4,600 records valued at $50M.
- Bureau of Land Management Branch continued an enterprise level analysis of withdrawn lands reserved to the Air Force per EO 13327. In January 2014, completed survey of the 39.5 acres on Fort MacArthur (pilot project for permanent acquisition process).
- The Real Estate Real Property Integration Branch developed a compliance matrix template for performing portfolio management on all UP projects.
- Established Utilities Privatization Portfolio Management.
- The Housing Branch delivered 800 new privatized homes and 522 renovated and 1,081 demolished units; executed construction at 100% of schedule; current end state inventory of 53,240 units (over 99.9 % privatized).
- Closed the ACC Group 3 housing privatization project, a total of 775 units at Dyess and Moody ($64.8M).
- The Real Estate Transactions Division awarded $15.8M in REPI Funds in fiscal 2014 providing encroachment protection of approximately 24K acres.
- Provided over $2.8M in funding to installations for projects and over 1,200 real estate actions.
- Provided monthly training to all Air Force Real Estate professionals worldwide via DCO (average of 160 staff/month; held yearly AFIT 424 Advanced Realty Course 40 people trained).
- Drafted updates to all five Real Estate AFIs ; updated Real Estate Playbook and the real estate grant templates.
- The Strategic Asset Utilization Division negotiated a 30-year EUL with Arizona Public Service for 100 acres on Luke AFB for a solar energy field to produce 10 MW (signed by SAF/IEI in May).

Energy Directorate (CN)

- Utilities Privatization scheduled 24 utility systems for privatization decisions. To date, 66 systems privatized with contracts valued at $5.2B, (cost avoidance of over $511M.
- The Performance Measurement and Analysis Division provided Air Force Energy Reporting System training to more than 60 MAJCOM and base energy managers; managed more than 500,000 data points.
- Created the Air Force Annual Energy Management Report, which is reported to Congress.
- The Advanced Meter Reading System Branch realized a 6.5-to-1 return on investment in the $11M Resource Efficiency Manager program.
- Obtained SAF/IE approval of Air Force Metering Data Master Plan to install electric and water meters and associated advanced meter reading system to cover 60% of Air Force.
- The Rates and Renewables Division released solicitation for a photovoltaic arrays at Vandenberg AFB (20MW), and JB Hickam-Pearl Harbor (1MW), and a 19MW PV array at Nellis AFB, activated the DOD's largest photovoltaic array (16.4MW) at Davis-Monthan AFB.
- The Utilities Rates Management Team completed enterprise-wide review of utilities contracts, saving $3.9 million; identified additional $4M potential savings.
- Produced three videos on the methods and proper procedures to capture utilities reimbursement (referenced by AFIT).
- Utilities Litigation negotiated utility rate agreements that avoided $6.1M in Air Force utility costs.
- The Program Development Division continued to execute projects under the Energy Conservation Investment Program, through Energy Savings Performance Contracts, Utility Energy Service Contracts, and NRG Funds.
- Supported award of 147 FY14 NRG projects totaling 89.5M (estimated annual savings of $16.2M and 906 BBTU); 27 FY15 NRG projects totaling $26M given authority to advertise (estimating annual savings of $2.4M and 148 BBTU).
- Under the ESPC/UESC program, awarded projects at Dyess AFB, ($13M investment saving 280 MBTUs/year) and Tinker AFB. ($714K investment saving 1847 MBTUs/year).
- Began process for DOD's first ENABLE ESPC effort in DOD at Laughlin AFB, Texas.

Operations Directorate (CO)

- Subject Matter Experts guided 16 technical technology transfer criteria development projects totaling more than $ 10.1M; published seven ETLs and updated 17 AFIs, one new AFPAM and 18 UFCs with Army and Navy engineering counterparts.
- Conducted 23 youth facility certification visits; completed 26 reports.
- As the MAJCOM Pest Management Professionals for eight MAJCOMs, conducted 27 installation staff assistance visits.
- Executed a hangar fire suppression contract to evaluate 635 aircraft hangar systems, to assess conditions and work required to bring systems into compliance with Air Force standards.
- The COA Division facilitated the near completion of the ($80M+) Sustainable Infrastructure Assessment II contract; completing six asset management product lines at 70 installations and GSUs worldwide.

- CO's Asset Visibility Team completed 12 base assessments; to date, 16.4M sq. ft. of facility condition assessments and Level II energy audits completed (potential savings of $19M for $7.6M investment); $3.4M savings realized from "Just-Do-It" initiatives ($343K investment); trained 2,500+ CE personnel on BUILDER.
- The Airfield Pavement Evaluation, or APE, Team accomplished 34 detailed evaluations on airfields around the globe, including in England, Kuwait, and Honduras; trained 90 personnel on contingency evaluations.
- Worked on award of 36 pavement condition index surveys ($3M) and 14 SME technical, material testing and APE Team support and criteria development projects ($5.6M).
- The Civil Engineer Maintenance, Inspection and Repair Teams, or CEMIRT, at Travis and Tyndall AFBs completed 642 work requests ($11.2M) for specialized support on electrical distribution/power generation, HVAC, industrial control, and aircraft arresting systems.
- The Operational Maintenance Division made strides on first update to AFI 32-1001 Operations Management since 2005.
- Completed five of six Component Integration Testing Sessions to prepare TRIRIGA for its initial operating capability in summer of 2015. Collaborated extensively with the field to create Preventive Maintenance Task Lists, or PMTLs, to replace Maintenance Action Sheets.
- Force Development Managers conducted four specialty training requirements team meetings for four Air Force Specialty Codes; five AFSCs held utilization and training workshops to approve 2013 and 2014 recommendations.
- Completed manpower workshops for the Structures, Pest Management, HVAC and Power Pro work centers, with others to be completed in 2015.
- Aided Reserve Expeditionary Combat Support Training Certification Center and the Guard Regional Equipment Operators Training School with aligning their Tractor Trailer Training, or 3T course to meet Professional Truck Driver Institute curriculum standards.

Planning and Integration (CP)

- The Activity Integration Division integrated six O&M programs from across the installation enterprise and delivered first-ever centralized Integrated Priority List; executed $1B (611 projects) in FSRM.
- Supported FY16 POM build of $56.1B installations portfolio, identified 199 Phase I/II disconnects and reviewed 27 combatant commander requirements.
- Evaluated $56B in enterprise-wide Installation portfolio requirements in support of the FY16-21 POM; secured 7.6% of the Air Force's Total Obligation Authority.
- Developed enterprise-wide standards for the facility and natural infrastructure condition assessment process and real property data collection.
- Standardized procedures and utilized Sustainment Management System concept to lay the groundwork for life-cycle enterprise investment decisions.
- Created the Installation Prospectus tool to inform leadership on the physical/financial condition of facilities, infrastructure and resources.
- The Enterprise Procurement Division implemented a Strategic Acquisition Plan Overview to allow for closer collaboration among the AFCEC directorates on funding execution and procurement strategies.
- Participated in several audiences with the Air Force Installation Contracting Agency commander to discuss current acquisition challenges and presented solution sets for implementation.
- CPE also officially accepted transfer of lead authority in supporting the Civil Engineering Commodity Council initiatives. The CECC evaluated projects involve research and financial analysis to recommend strategic sourcing opportunities for CE enterprise commodities and installation maintenance services.
- The Comprehensive Planning Division led the procurement and execution of 11 installation development plans at major installations (e.g., F-35 bed down at Tyndall and KC-46 bed down at McConnell).
- Developed enterprise-wide planning analysis capability in the form of an infrastructure performance assessment tool and an encroachment risk analysis tool designed to inform local and corporate decision makers and the centralized investment process.
- Defended Air Force installations from encroachment by assuming the Encroachment Management execution role for the Air Force; resulted in development and support of six joint land use studies, 10 noise contour and six air installation compatibility use zone studies, and 14 ICEMAPs.

Readiness Directorate (CX)

- Requirements and Acquisition Division achieved IOC Oct. 1, to derive requirements, develop materiel solutions, and provide contingency support for CE mission.
- Deployed the Advanced Energy Efficient Shelter Systems for tropical environment conditions in Guam; demonstrated reductions of 61% for peak demand and 56% for total demand.
- Fielded eight additional Sustainment Pavement Repair, or SuPR, kits to training sites and 26 to WRM inventory.
- The Air Force Contract Augmentation Program provided almost $100M in support for contingency requirements.
- The Explosive Ordnance Disposal Division began prototype development for the Recovery of Airbases Denied by Ordnance, or RADBO, platform as part of the family of systems for the Multiple UXO Recovery System.
- As the U.S. Secret Service's Air Force POC, tasked 700+ teams with 88,478 man-hours of protection for the President, Vice President, Secretary of State and foreign dignitaries.
- Outfitted 250 EOD graduates with $3.4M in gear under the strategic fielding initiative.
- Utilized the EOD Equipment Management Facility to reconstitute and redistribute equipment from AFCENT deployments (value of $56M to date); recovered $18M of depot equipment.
- The Fire Emergency Services Division earned the Horizon Interactive Award for Fire Department Health and Safety Officer Certification course.
- Fielded first P-19 (4x4) and P-23 (6x6) Aircraft Rescue Firefighting Vehicle with new ultra high pressure technology.
- Earned International Fire Service Accreditation Congress re-accreditation for 67 certification levels delivered through three training platforms.
- The Emergency Management Division created a tiered approach to disaster response force training saving Air Force 81,000 hours of training time and $942,000.
- Provided CBRN and EM Subject Matter Expertise; authored TTP guidance for new Airman's Manual.
- Executed $2.02M in shelf life extension testing, delaying purchase of $32.4M in replacement chemical warfare defense equipment assets.
- Collected and validated requirements for air and ground crew chemical defense equipment for worldwide Air Force requirements; executed $1.5M buy.
- Developed a planning tool to assist Emergency Managers author their respective installation emergency management plans; informed 177 planners at 76 installations.
- The Expeditionary Engineering Division trained 94 personnel through five Prime BEEF Manager and Unit Deployment Manager Training Classes; developed five new UTCs for Traditional Ops and airfield damage repair.
- Published the War and Mobilization Plan-1 (WMP-1) Civil Engineer Supplement, the Expeditionary and Emergency Services Program Group Charter and the Interim Airfield Damage Repair (ADR) Tactics, Techniques and Procedures (TTPs) for Recovery after Attack
- Processed 4,886 requests for assistance through the AFCEC Reach Back Center.
- Managed contingency training with a throughput of 3,522 Airmen for Silver Flag, 1,294 for MEET, 180 for Crane initial/refresher training and 237 for REOTS.

Environmental Directorate (CZ)

- The Compliance Program Management Office centrally managed 3,324 projects, exceeding PB 80/20 requirements.
- Conducted over 10,200 transactions, funding 2,681 environmental quality projects totaling $268M+.
- Implemented centralized procurements, combining 188 individual contract actions at 43 bases into 25 environmental support contracts (savings of $30M over five years).
- Streamlined base level environmental MICT requirements, replacing 876 regulatory self-assessment checklists(38,000 questions) with nine new AFI-based checklists (68 questions).
- Deployed comprehensive enterprise web-based environmental training — ESOH-TN
- Managed environmental awards process, evaluated hundreds of base-submitted packages; selected MAJCOM/Air Force winners; assembled DOD award nominees.
- The National Environmental Policy Act Division completed the Environmental Impact Statement for the KC-46A main operating base (McConnell AFB, Kansas) and the Formal Training Unit (Altus AFB, Neb.) in 12 months – a first for a major new weapon system beddown.
- Completed the Environmental Assessment for the expedited basing of Afghan A-29 Light Air Support training mission in four months, meeting SECAF's basing decision timeline.
- Developed the NEPA Repository on eDASH; currently houses over 1,200 completed NEPA reference documents.
- Saw the Proponent's Checklist signed into effect by SAF/IE in May to aid proponent offices in defining responsibilities and increasing rates of execution.
- Developed standardized templates for environmental assessments to streamline environmental impact analysis process execution at installations.
- CZ's Operations Division established the Air Force Wildland Fire Center at Eglin AFB and seven national fire academies (a model partnership with the Army and Colorado State University). The WFC responded to and suppressed over 6,500 acres of wildfires, and conducted nearly 100,000 acres of prescribed burns.
- Installation Support Teams in conjunction with installations authored/updated 121 environmental plans and permits historically done by contract, reducing costs by $7.8M
- ISTs worked directly with installations and subject matter experts to develop enforcement action corrective action plans and assist with Environmental Management System Tier II assessments; reduced EAs by 40% and time to close by 28%.
- The Restoration Program management Office awarded seven performance-based remediation contracts ($320M) for environmental restoration programs for 11 installations and cleanup of 443 contaminated sites. Reduced the Air Force's long-term environmental liabilities by $400.
- Implemented cleanup remedies in place at 471 sites.
- Completed cleanup actions at 440 contaminated sites returning property to beneficial use while being protective of human health and the environment remedies-in-place, or RIPs.
- Achieved site closure at 396 sites, completing all Air Force cleanup efforts and allowing unrestricted use/unrestricted access of the land in the future.
- CZ's Technical Support Division instituted Evaluation Recon (VIPER) capability to assess levels of contaminated soil gas into buildings (reduces response time by six-months and projects annual savings of $1M annual savings).
- Oversaw accreditation of over 100 labs under the DoD Environmental Laboratory Accreditation Program (48 new/renewal visits).
- Completed comprehensive update of 13 Environmental Playbooks and Operational Range Munitions Constituent Migration Assessment Reports (40 ranges).
- Completed implementation of the Enterprise Environmental Safety and Occupational Health Management Information Systems at all installations.
- Centralized payment of Defense Logistics Agency hazardous waste disposal and management cost for 151 projects totaling $9.8M.
- Established Air Force-wide standardized cradle-to-grave management of $750M overseas remediation program.

Officers from the Indonesian and Royal Malaysian Air Forces tour AFCEC's materials laboratory as part of the Pacific Unity Subject Matter Expert Exchange, a program designed to strengthen cooperation and idea exchange with select Pacific nations. (U.S. Air Force photo/Eddie Green/Released)

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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, 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 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.

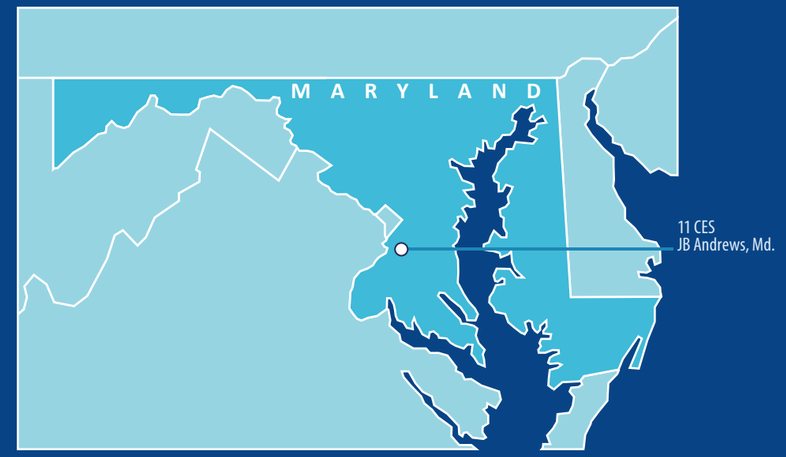
CE RESPONSIBILITIES

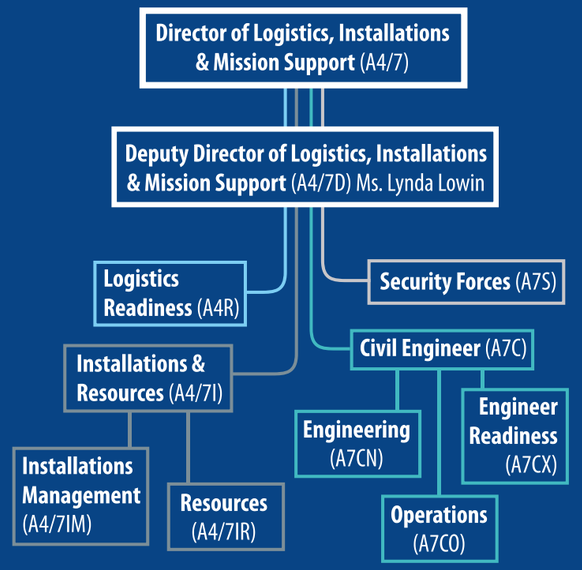
AFDW civil engineers perform the major command functions of organizing, training, equipping and providing assigned Civil Engineer forces from the Office of the Secretary of the Air Force, HAF, AFDW and other federal and civil agencies located worldwide to support global contingency operations and recovery 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

- Garnered $43M total to fund 72 vital infrastructure projects for Joint Base Andrews .
- Garnered and awarded $18.5M for electrical substation and switching station projects for JBA.
- Identified more than $500M in future airfield investment opportunities over the next 10 years.
- Kicked off the $252K Installation Development Plan to guide future development for JBA over the next 20 years.
- Conducted successful staff assistance visit for 11 CES, posturing and preparing them for their upcoming unit effectiveness inspection.
- Conducted Utilities Privatization SAV for 11 CES, enhancing program oversight/management.
- Revitalized AFCEC, DLA-Energy, and 11 CES efforts to correct UP deficiencies; completed inventory true-up; initiated $1.06M OARS requests to complete contract price redeterminations
- Oversaw JBA as test base for Air Force's new CE IT solution, postured to validate usability Air Force-wide
- Supported Air Force Installation and Mission Support Center (Provisional) standup with $475K in IT and equipment funds advocacy and execution.
- Completed JBA's first sustainable infrastructure assessment providing facility data and audit support.
- Coordinated east runway 10-year BAK-14 barrier maintenance and recertification with minimal ops impact.
- Facilitated reporting and after-action analysis on JBA's hangar high expansion foam discharge.
- Scheduled HQ AMC/A7 support for multi-discipline infrastructure assessment team visit to JBA.
- Hosted the Air Force-level Expeditionary and Emergency Services Program Group Conference.
- Conducted Black Flag exercise (March 24-April 4), enhancing readiness for 40 CBRN responders.
- Provided SME support to AFFOR Operations Center, Contingency Support Cell, and JFHQ-NCR Joint Operations Center during the 2014 State of the Union Address and the African Leaders Summit.
- Led a $10M initiative to develop a five-year construction plan in Israel, building partnership capacity.
- Advocated and obtained an additional 11 authorizations for the 11 CES EOD Flight to support Very Important Persons Protection Support Activity, U.S. Secret Service, and Department of State missions ensuring the safety and protection of the President and other senior leaders; AFDW supported 114 total missions (22% of the Air Force's total of 525 missions), using 10,778 man-hours and spending $31K.
- Oversaw Joint Basing for JBA (Air Force-led) and Joint Base Anacostia-Bolling (Navy-led).
- Pushed JBAB Parcel Q upgraded renovations for marketability and project financial stability, enhancing levels of service driving occupancy to 98%.
- Coordinated with NAVFAC to increase JBAB Public Works Department manning by another 41 personnel to support facility maintenance for Air Force personnel.
- Supported housing residents with an award winning education program…four academic growth achievement and parent satisfaction awards!

CE Units in Command





2014 Statistics

Major Bases	1
Plant Replacement Value	$5.6B
Buildings	6.7M sq. ft.
Airfield Pavement	2.5M sq. yd.
Housing	1,141 units (100% privatized)*
Dorms	827 rooms

AFDW Personnel

Active Duty	322
Reserve	6
Civilian	169

CE Personnel

Active Duty	322
Reserve	6
Civilian	169

MILCON	3 projects ($240M)
SRM	72 projects ($43.2M)
Facilities Operation	$28.8M

*Note: AFDW executes worldwide accountability and support to 40,000+ Airmen not assigned to a MAJCOM or an Air Force installation

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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 Jose Rivera Hernandez
10 CES Commander

MISSION

The essential and enduring mission of the U.S. Air Force Academy 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 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.

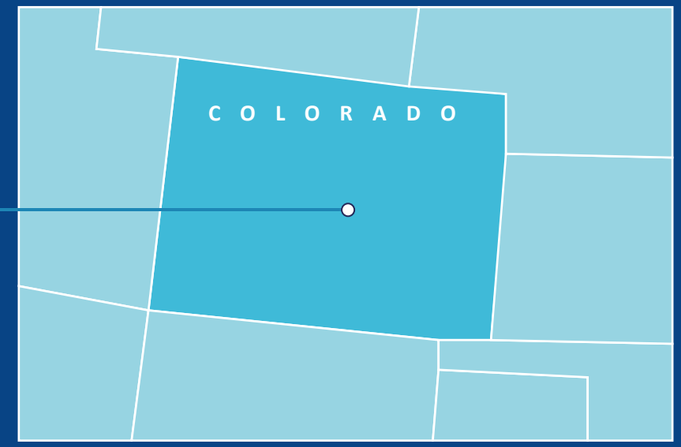
CE RESPONSIBILITIES

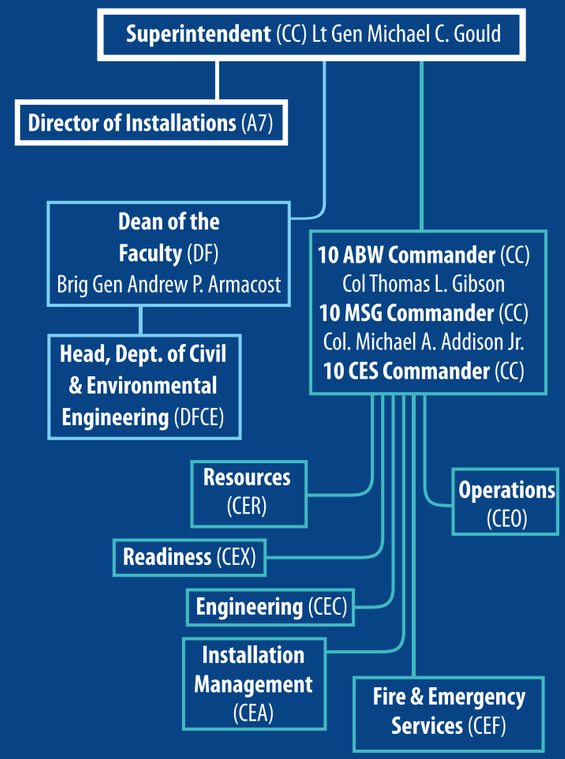
USAFA Civil engineers develop future leaders through instruction, mentoring and through the provision of world-class infrastructure and facilities. The Department of Civil and Environmental Engineering has responsibility for two accredited majors: Civil and Environmental Engineering. Graduates receive 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 provides emergency services and operates, sustains, and modernizes infrastructure and facilities on USAFA.

SIGNIFICANT ACCOMPLISHMENTS

- Deployed seven military firefighters to Afghanistan, Kyrgyzstan and Jordan to support downrange COCOM mission and one civilian to Afghanistan on 17-month tasking to support drawdown.
- Hosted 12 airshow-equivalent events including the National Character and Leadership Symposium, Cadet Graduation, USAFA Falcons home football games and numerous other NCAA events, Parents' Weekend, Wounded Warrior events, and the Fall CORONA conference.
- Implemented a new incident evacuation plan for CORONA attendees that was benchmarked by Headquarters Air Force staff for use at other CORONA conferences.
- Converted turf to xeriscape and reduced potable water consumption by more than 38%.
- Implemented Defense Connect Online XMPP Desktop Client and improved USAFA's Disaster Response Force's ability to communicate critical incident information.
- Updated fire alarm systems in more than 20 buildings; reviewed plans for more than 25 building system upgrades.
- Demolished 298 housing units; removed O&M requirements and provided for a more financially viable privatized housing effort.
- Hosted a Fire Officer Academy; 47 personnel from USAFA took part in the training.
- Completed $1.95M repair of Community Center Drive with 13,000 feet of asphalt, curb and gutter; striping; and potable water line.
- Won a 2014 Air Force Merit Award for Facility Design for the $6.7M FY12 MILCON project to construct the large vehicle inspection station.
- Completed $5.2M, eight-phase renovation of Mitchell Hall, renovating formal and informal dining rooms, and installing a geo-thermal HVAC system.
- Demolished 232 residential family housing units in Pine and Douglass Valley and restored the 65-acre site to natural conditions for $6.8M.
- Completed $10.1M sixth phase of 63,000-square foot renovation of the Cadet Gymnasium including finish, HVAC, plumbing, fire detection and structural work in the tennis mezzanine office areas, level T offices, and west gym and mezzanine areas.
- Graduated 62 cadets in Class of 2014: 51 civil engineering, four environmental engineering and seven dual civil/environmental engineering majors; 25 will enter Civil Engineer career field and 35 will enter other career fields.
- Completed 21st offering of CE 351 at the Field Engineering and in the Readiness Lab, or FERL, under guidance of 74 active duty, Guard and Reserve mentors and 13 senior cadets; 63 students (57 USAFA, six Naval Academy) constructed two Navajo homes for the Southwest Indian Foundation.
- DFCE Faculty published three papers, three conference posters, and authored/co-authored two books.

CE Units in Command





2014 Statistics

Major Bases	1
Plant Replacement Value	$3.2B
Buildings	6.7M sq. ft.
Airfield Pavement	5.32K sq. yd.
Housing	667 units
Dorms	2,458 rooms

CE Personnel

HQ USAFA/A7

Active Duty	0
Civilian	3
Contractor	0

HQ USAFA/DFCE

Active Duty	16
Reserve	3
Civilian	5

10 CES

Active Duty	28
Civilian	92
Contractor	559

MILCON	1 project ($843K)
S/R&M	146 projects ($107.2M)
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

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 18 military personnel, 12 civilians, and seven contractors.

Col Paul Cotellesso
Dean

Dr. Jared Astin
Associate Dean

SIGNIFICANT ACCOMPLISHMENTS

The Civil Engineer School educated about 4,400 Air Force and Joint Service civil and environmental engineers through nearly 140 course offerings during fiscal 2014. To maximize flexibility and accommodate student schedules, these courses were offered via traditional in-residence and on-site settings, as well through advanced distance learning methods including online, DVD, satellite and eSymposium. Below are some of the highlights:

Vital

- Graduated and badged 125 new Air Force Civil Engineer officers in FY14, strengthening the career field's foundation and ensuring preparedness for combined engineer operations.
- Sustained the close partnership between active duty, Guard, Reserve, and civilian civil engineers by fully integrating all groups into the "Total Force" initial skills badge-awarding course, producing 175 field-ready engineers in FY14.
- CE School faculty members were by-name-requested to support development of all Air Force-level Civil Engineer playbooks and several process-development teams.
- Served as the Air Force senior facilitator for five Joint Engineer Operations Courses, certifying 40+ Air Force civil engineers and 300+ joint engineers for Joint Task Force J7 operations.

Relevant

- Delivered timely updates to more than 1,000 Civil Engineers across the world from subject matter experts on vital information with the highly lauded WMSS 599 Civil Engineer Speaker Series.
- Provided 17 course offerings for key Civil Engineer leadership positions, ranging from CE squadron commander/deputy and CE squadron superintendent, through engineering, EOD, installation management, and operations flight commanders.
- Introduced a new OSHA-authorized 30-hour Construction Safety Standards Course, delivered on-site, which resulted in 65 graduates in FY14, avoiding $250K+ in TDY costs and fees.
- Individual all-star CE School faculty members were recognized with a national-level FY13 Federal Engineer of the Year Award, Air Education and Training Command-level nomination for the FY14 Federal Engineer of the Year Award, Air University-level FY13 and FY14 CGO of the Year Awards, and received AFIT's FY14 Team of the Year laurels for the WMGT 101 CE Basic course.

Connected

- Delivered AFIT's first-ever Professional Engineer Review Course, which provided 30 hours of proctored material to help prepare 99 joint service graduates for the rigorous Professional Engineer exam during FY14.
- Led nine Inter-Service Environmental Education Review Board-approved course offerings, which produced more than 230 joint warfighters.
- Developed new and cutting-edge distance learning techniques which had impact beyond the Air Force, earning recognition with the Federal Distance Learning Association's 2014 Innovation Award and 2013 Course of the Year from the Defense Education and Training Network.
- Realigned and revitalized the Readiness and Emergency Management Flight Commanders course, which had previously resided at Fort Leonard-Wood; forged a strong connection between subject matter experts at AF/A4C, AFCEC, AFIT and the field.
- Strengthened a partnership with the contingency asset experts from the 49th Materiel Maintenance Group by sponsoring a collaboration exercise which encouraged a productive cross-flow between educators and hands-on equipment operators
- Provided hundreds of hours of timely and responsive consultation services to engineers around the world for issues in management, engineering, and environmental subject areas.

AFIT

Graduate School of Engineering & Management

Wright-Patterson AFB, Ohio
937-255-3636 ext 4826
DSN 785-3636, ext 4826

The faculty is responsible for all aspects of the graduate engineering management program. The GEM program is responsive to the needs of the Air Force CE community, developing courses and tailoring curriculum to prepare graduates for the future. Students are educated to plan, organize and lead in a technology-focused organization and to apply critical thinking skills and analytical techniques to solve the most challenging problems. The students collaborate with Air Force agencies in conducting defense-focused, independent research. The faculty conducts independent research and their technical expertise is proven by the program's journal publication track record.

Maj Vhance V. Valencia, Ph.D., P.E.
Program Director

GEM Faculty:
Maj Greg Hammond, Ph.D., P.E.
Dr. Al Thal, Ph.D.
Maj Vhance Valencia, Ph.D., P.E.
Col Paul Cotellesso, Ph.D. (adjunct)

GEM PROGRAM DESCRIPTION

The GEM program is designed for individuals who desire to integrate technical and managerial skills in preparation for operating within a technical environment. Students learn to define problems, formulate approaches to investigate the problems, collect and analyze data with appropriate analytical tools, and interpret findings for managerial action. With coursework in management science, project management, decision and risk analysis, systems analysis and behavioral science, students are able to develop their management proficiency within an area of technical specialization (e.g., infrastructure, construction or crisis management). The program's strength lies in its multidisciplinary approach — core management principles are integrated with graduate-level technical education.

The program includes several civil engineer specific courses, including those on the following topics: construction management, inspection, contracts and law, and risk and finance; asset management modeling; infrastructure asset management and risk analysis; geographical information systems; and crisis management.

SIGNIFICANT ACCOMPLISHMENTS

The culmination of the GEM program is the presentation and defense of a master's thesis. Some theses are researched and articulated in a way that contributes significantly to a field's body of knowledge. A representative sample of journal articles and theses are listed below (names of student authors are in bold):

- Valencia, VV, Thal, AE, Jr, Sitzabee, WE, & Colombi, J. Infrastructure Decay Modeling with the Input-Output Inoperability Model (IIM)," ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B. Mechanical Engineering (in press).
- Bell, JM, Huang J, Christ, JA, Demond, AH, & Goltz, MN. 2015. Remediation Complications: Subsurface Cracking at Hazardous Waste Sites. The Military Engineer, 693:51-52.
- **Blomberg, DL**, Cotellesso P, Sitzabee, WE, & Thal AE, Jr. A.E. 2014. Discovery of Internal and External Factors Causing Military Construction Cost Premiums. Journal of Construction Engineering and Management, 140(3).
- **Brown, SP**. 2014. A Change Management Approach to Enhance Facility Maintenance Programs. Unpublished Master's Thesis (AFIT-ENV-14-M-13)
- **Griffin, JS**, Thal, AE, Jr., & Leach, SE. 2014. Enhancing Asset Management Through a Better Understanding of Energy Consumption. International Journal of Strategic Property Management, 18(3):253-264.
- Kanel, SR, **Tellez, M**, Meyerhoefer, A, and Goltz, MN. 2014. Photooxidation of Nitroaromatic Explosives in Aqueous Solution by Silver Doped Titanium Dioxide Thin Film in the Presence of Natural Solar Light. 2014 World Environmental & Water Resources Congress, Portland, OR, June 1-5, 2014.
- **Ochs, KS**, Miller, ME, Thal, AE, Jr, & Ritschel JDME Miller, AE Thal, Jr.,& J.D. Ritschel. 2014. Proposed Method for Analyzing Infrastructure Investment Decisions Involving Rapidly Evolving Technology: A Case Study in LED Streetlights. Journal of Management in Engineering, 30(1):41-49.
- **Synovec, TM**. 2014. Investigation of the use of Equivalency Factors for the Design and Evaluation of Flexible Airfield Pavements. Unpublished Master's Thesis (AFIT-ENV-14-M-63 (unpublished).
- **Tellez, M**, Mills, MA, Agrawal, A, Dasu W, Brashear, MN, Goltz, MN, & Kanel, SR. Photocatalysis of Nitroaromatic- and Perfluorinated-Compound Contaminated Water. Ninth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA, May 19-22, 2014.
- Sitzabee, WE & **Harnly, MT**. 2013. A Strategic Assessment of Infrastructure Asset-Management Modeling. Air & Space Power Journal, Vol 28, Iss. 6.

Air Force Civil Engineering History
Significant Events Timeline

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

Sep 1944 • Brig Gen Robert Kauch became Chief, Air Installations Division.

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.

1954 • The monthly publication Installations Engineer Beacon, the forerunner of today's Civil Engineer Magazine, was begun to inform the field activities on important policies, procedures, and new ideas.

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

Feb 1957 • DoD Directive 1315.6 entitled Responsibilities for Military Troop Construction Support of the Department of the Air Force was issued to clarify the responsibilities for airfield construction and maintenance in overseas contingency situations.

1959 • Air Force Installation Representative (AFIR) offices were redesignated Air Force Regional Civil Engineers. The AFIRs originally had been organized and collocated with Corps of Engineer Division Offices in 1948. In 1968, the number of AFRCEs was reduced to three.

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

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

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

1 Oct 1965 • The first two RED HORSE squadrons, 554th and 555th, were activated.

1 Apr 1966 • The Civil Engineer Construction Operations Group, the forerunner of AFCEC, 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.

15 May 1967 • The 1st Civil Engineering Group (Heavy Repair) formally activated to provide command and control for the five RED HORSE squadrons in Vietnam.

5 Feb 1968 • The 557th Civil Engineering Squadron (Heavy Repair) was activated and quickly deployed to Korea in April 1968 to provide engineering support following the North Korean seizure of the USS Pueblo.

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

Dec 1975 • Women were first allowed to be assigned to Prime BEEF teams.

May1985 • SALTY DEMO, an air base survivability demonstration, was held at Spangdahlem AB, Germany

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

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.

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.

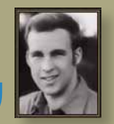
1 Mar 1993 • Det 1, 823rd RED HORSE Squadron was activated to assume responsibility for the new Silver Flag Exercise Site at Tyndall AFB, Florida.

Aug 1993 • The Air Force Fire School moved from Chanute AFB, Illinois, to Goodfellow AFB, Texas.

3 Mar 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.

11 Sep 2001 • Eighteen members of the 203rd RED HORSE Flight of the Virginia Air National Guard were killed when their C-23 transport plane crashed near Unadilla, Georgia.

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.

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.

Dec 2011 • The last AF CE members left Iraq.

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

22 Jun 13 • Maj Gen (S) Gen Theresa C. Carter became the first female to serve as The Civil Engineer.

CE CAREER FIELD

CMSgt Nate Adams
Chief, Force Development Division
Air Force Civil Engineer Center

AFCEC's Force Development Division is responsible for the training development of approximately 32,000 total force civil engineer personnel in 10 Air Force specialty codes. Experts in each of the AFSCs, known as force development managers, work with Air Force Career Field Managers in the 3E000, 3E700, 3E800 and 3E900 specialties and the Air Reserve Component as well as career field representatives at the MAJCOMs, Air Staff and Air Force Personnel Center.

FDMs develop career field education and training plans, or CFETPs, and manage over 300 web-based courses on the Advanced Distributed Learning Service and the Civil Engineer Virtual Learning Center sites. They serve as enlisted subject matter experts within their respective specialty and advise total force engineers at all functional levels. Over the past year, the FDMs conducted four specialty training requirements team meetings for the 3E1X1, 3E4X1, 3E4X3, and 3E6X1 AFSCs. At these STRTs, they worked with MAJCOM representatives and AETC on top-to-bottom training reviews to ensure specialty training remains relevant to home station and deployed location requirements. The 3E0X1, 3E0X2, 3E4X1, 3E4X3 and 3E5X1 AFSCs held utilization and training workshops to approve recommendations from 2013 and 2014 STRTs. As sole voting members at these workshops, the MAJCOM Functional Managers sanctioned development of new CFETPs, initial skills and supplemental courses, and qualification training packages. As the largest manpower effort in over a decade, the 1st Manpower Requirements Squadron completed a feasibility assessment of the Civil Engineer Operations Flight and started development of a new Operations Flight Air Force Manpower Standard. This new functional modeling methodology will balance manpower across the Air Force to a common infrastructure, credit uncommon workload due to unique factors, and reset our manpower baseline. This year we completed manpower workshops for the Structures, Pest Management, HVAC and Power Pro work centers; the remaining will be completed in 2015. The following pages provide specific information regarding the current status of the enlisted CE career fields. 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@us.af.mil). Up-to-date information and guidance for individual AFSCs can be found on the CE Force Development SharePoint https://cs3.eis.af.mil/sites/OO-ENCE-A6/24048/default.aspx. Please take advantage of these resources.

UPDATE

CMSgt Trevor Shattuck
AFRC Career Field Manager

2014 was a benchmark year for Air Force Reserve Command Civil Engineer practical skills training. The 622th Civil Engineer Group Expeditionary Combat Support Training Certification Center, along with the Air National Guard Regional Equipment Operators Training School attuned their Tractor Trailer Training (3T) course to meet Professional Truck Driver Institute curriculum standards. ECS-TCC and REOTS cadre teamed with the instructional coordinator of commercial transportation studies at Delaware Technical Community College to build a 3T training model that mirrors civilian training programs. The ECS-TCC and REOTS are now poised to gain PTDI certification in January 2015. The PTDI certification is the capstone that will make the ARC 3T course the first Department of Defense tractor trailer training course to receive PTDI certification. Currently offered only by the two ARC training sites, the 3T course has been recognized by professional military organizations as a benchmark in an initiative to legislate FY16 funding to develop comparable training programs. AFRC training developers also began working to obtain industry credentials for the crane certification course that delivers training that not only meets but exceeds civilian industry crane certification training standards.

In September members of the 3T cadre briefed the directors of military and government relations for the Air force Association and Air Force Sergeants Association on how 3T fits in the Office of the Secretary of Defense - Transitioning Veterans Program Offices Military Life Cycle Training initiative. The OSD is charged with changing the culture regarding military training. The developers of the 3T and crane certification training programs executed by the Air Force Reserve Command are leading the way in assisting the OSD.

For more information on AFRC course offerings please contact the Air Reserve Component sites' training schedulers.

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ELECTRIC

Civil Engineering has long awaited a standardized solution to the costly 100% untreated cotton ABU uniform requirement. After almost a decade of waiting and as a result of extensive uniform testing and data collection provided by the Air Force Safety Center, ETL 14-5, Requirements for Wear of Military Uniforms with Arc Thermal Performance Value rated Personal Protective Equipment, was approved for public release on May 28, 2014. ETL 14-5 authorized the wear of 50% nylon-50% cotton ABU Pants Only under Arc Thermal Performance Value protective clothing for Hazard/Risk category 0 through 2 tasks. This ETL is now consolidate in the latest revision of AFI 32-1064, Electrical Safe Practices. This ETL and now AFI change has fundamentally changed how we do business, and as a result our technicians will no longer have to worry about when or where to change out of their uniforms. For the majority of the day-to-day tasks our technicians will simply need to remove their blouse and don their ATPV-protective clothing. The Electrical Systems Specialty Training Requirements Team meeting was conducted in February 2013, followed by the Utilization and Training Workshop in March 2014 and finally the Education and Training Review Committee in August 2014. The STRT's recommended changes to the Career Field Education and Training Plan were approved by the U&TW and briefed to the ETRC. The Career Development Courses) are currently being rewritten to incorporate the approved changes and both the CDCs and CFETP are scheduled to be released in April 2016. The majority of changes to the CFETP consisted of proficiency level adjustments and publication and reference updates. The STRT also voted to eliminate the Cable Testing and Splicing, or CTS, course; however, we are inserting three top CTS lessons into the Electrical Distribution Sys Maintenance course.
From the Force Development Managers perspective, 2014 proved to be one of the most productive or recent years for the Air Force's Electrical Systems Specialists. In an effort to help the Electrical Systems community stay abreast to the many 3E0X1 changes to UFCs, AFIs, ETLs and more, visit https://www.milsuite.mil and search for and join the Electrical Systems CoP.

SMSgt Mark Morgan
3E0X1 Force Development Manager

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ELECTRICAL POWER PRODUCTION

2014 was a year of execution for the Electrical Power Production career field. The 3E0X2 Specialty Training Requirements Team recommendations and Utilization and Training Workshop approvals resulted in phenomenal impact to our career field's life cycle of training. From the development of new training plans, to delivering up-to-date equipment at our training locations, through revamping how we train and what we train on, to the revision of the guidance, policy and doctrine we follow, 2014 was a productive year.
All our contingency training locations around the world and our formal training school at Sheppard AFB, Texas began to formalize the future training plans for the career field. The first set of BEAR Power Units was introduced into the Detachment 1, 823 RHS Silver Flag site on Tyndall AFB in early 2014. Following the standup of the BPU program at Silver Flag, the BEAR program office along with BPU contractors began shipping the remaining FY14 BPUs to all remaining training locations and select War Reserve Material inventory sites. In September 2014, the 40-hour Mission Essential Equipment Training BPU course was activated at CONUS MEET locations. After decades of honorable service, the 366 TRS at Sheppard AFB retired our mighty high-voltage workhorse, the MEP-12A, and introduced the new BPU into both the apprentice and Contingency Power Generation supplemental courses.
Through consolidation and supplemental course efficiency initiatives, the decision was made to deactivate the Power Generation Planning, Operations and Maintenance course along with the Mobile Training Team courses for the MAAS and BAK-12. The future consolidated training curriculum will include both the Troubleshooting Electrical Power Generation Equipment and Contingency Power Generation supplemental courses which are scheduled to be released in FY15. Additionally, AFI 32-1062 and AFI 32-1063 were approved for consolidation; the combined AFI 32-1062 will include release of Air Force Form 487, Generator Operating Log Inspection Checklist. ETL 14-5, which provided guidance on the proper wear of Arc Flash PPE and USAF uniform combinations, is now consolidate in the latest revision of AFI 32-1064, Electrical Safe Practices.

SMSgt Samuel J. Schmitz
3E0X2 Force Development Manager

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HVAC & REFRIGERATION

In FY14, representatives from each command executed a top-to-bottom scrub of the 3E1X1 CFETP during the Specialty Training Requirements Team meeting at Sheppard AFB. The team reviewed and proposed changes to more than 1,100 training tasks for the 3-, 5-, and 7-level skill upgrade program. They also determined the best training for the 3E1X1 career field is "hands-on" and utilizing the traditional on-the-job training program, the ultimate goal of placing "go, no-go" training back into the hands of NCOs, civil service and local national experts. AETC formal training coupled with a robust OJT program is the winning formula for our next generation of HVAC technicians. Expect to see these changes introduced into the career field over the next two years.

This past July 2014, two Airmen from Patrick AFB and two Soldiers from Virginia finalized the highly anticipated technical order for the TRICON Refrigerated Container System, or TRCS. Although this process was long and grueling, this tightly woven joint-service effort delivered AFSC 3E1s and Military Occupational Specialty 91Cs the best tactical cold storage system for the technician. Additionally, the STRT members reviewed the contingency equipment list and locked-in training on equipment assigned to the BEAR inventory. Technicians should anticipate TRCS, ADR-300 (phase-out by 2024), 130K Tent Heater, 400K Water Heater, FDECU, HAC-36, and IECU as the primary contingency equipment items to train on. Just as our new CFETP implementation, expect these proposed changes to happen over the next two years.

ETL 14-5, which provided guidance on the proper wear of Arc Flash PPE and USAF uniform combinations, is now consolidated in the latest revision of AFI 32-1064, Electrical Safe Practices. Finally, AFI32-1068, Heating Systems and Unfired Pressure Vessels, dated Sept. 18, 2014 has been published and supersedes the May 14, 2013 version.

MSgt Christopher Tilstra
3E1X1 Force Development Manager

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PAVEMENTS & EQUIPMENT

It was another big year for the Dirt Boy career field! We rolled out new CDCs in January, standardized crane training, and stood up advanced Tractor-Trailer Training (3T), which is continuing to pave the way in the CE Community.

The new CDCs, 3E251 Edit Code 1, were activated on Jan. 7, 2014. The new 5-level course is a streamlined version of the old course. With only four volumes of information, it reinforces the career field's effort to focus training on the essentials needed to become true craftsmen. The previous sets, 3E251A/N and 3E251B/O will be deactivated when all currently enrolled airmen complete the course.

On Oct. 1, 2014, the new crane licensing policy went into effect mandating all CE operators attend AFCEC-approved training courses prior to operating. This reflects requirement changes made by OSHA and ensures the safety of all CE operators. Concurrently, several changes were made to improve the training provided. We made huge strides to standardize all crane locations and are currently finalizing a course rewrite that will shift the focus to the more crucial aspects of crane operations. Finally, we added the 819th RED HORSE to the list of initial certification sites bringing the number of certification sites to six and added the 119th, 145th and 163rd Regional Training Sites to the list of recertification sites bringing that total to nine.

The 3T course is up and running better than ever imagined. Demand for this training is through the roof so we are trying to find avenues to accommodate everyone. We will add extra class dates at both the Dobbins and REOTS locations and we anticipate the stand-up of a 3T site at the 435th CTS at Ramstein AB in the fall of 2015. Keep an eye out through 2015 as more information is made available.

Thanks for all you did in 2014 as you kept the Dirt Boy career field at the forefront of the CE community!

MSgt Eric G Johnson, Jr.
3E2X1 Force Development Manager

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STRUCTURAL

It's been a busy year for Structures and following are some highlights.

The Naval Construction Training Center in Gulfport, Miss., made great strides in training, bringing us closer to industry standards and modernization. In the fall of 2015, the apprentice course will see the addition of new Airfield Damage Repair methods, and the deletion of TEMPER tent and legacy paint striper. NCTC taught the first Contingency Training Course since the transition from Holloman AFB, N.M., and finalized updates to the Roof Inspection Maintenance and Repair Course. The course was redesigned to teach Airmen the necessary skills to maintain roll-up doors, cipher locks and contingency safe entry procedures. The Career Development Course rewrite is underway and scheduled to be released in October 2015. Look for the addition of dome shelter, aircraft maintenance hangar, frame supported tensioned fabric shelter and large area maintenance hangar.

The paint striper modernization is underway with testing of multiple paint stripers. Additionally, a "paint" UTC is being created to expand paint CE capabilities beyond airfield and base pavements. An ADR overview will be added to Silver Flag training; however, to dispel any rumors, legacy ADR (FFM/AM2) is not going away. It will be incorporated with new processes to increase our overall capabilities. Also being added is a large shelter maintenance course designed to cover the most common issues; B-1 revetments curriculum is being removed. Expect to see the compact track loader with wheel saw and other attachments added to our ADR skillset.

Structures personnel from each MAJCOM met at Randolph AFB in September to kick off the Civil Engineer Operations Flight Manpower study. The team validated millions of hours of IWIMS data. Upon completion, the team was able to determine standard manpower rates for each type of facility and function we perform. The new rates will be applied to each base in the future along with variances for specialized functions and missions. When the dust settles, we do not anticipate any overall manpower cuts, but we'll likely see a redistribution of manpower across the force to better meet operational requirements.

SMSgt Todd Davis
3E3X1 Force Development Manager

3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1

WATER AND FUEL SYSTEMS MAINTENANCE

At the Utilization and Training Workshop held at Sheppard AFB in August 2014, members evaluated the Water and Fuel Systems portions of the Air Force Enlisted Classification Directory and the CE Supplement to the War Management Plan, as well as the Career Field Education and Training Plan's associated Specialty Training Standard. The team corrected training deficiencies from the 2009 career field merger, deleting obsolete items and added current industry standards. Overall, there were more than 100 changes to the apprentice and supplemental course as well as the STS. With all approved changes, Water and Fuel Systems Maintenance course will be shortened by 114 hours.

As of Oct. 1, 2014, the Backflow Prevention Devices Testing Course (mobile training team) was discontinued for CONUS locations, but will continue supporting both USAFE and PACAF bases.

The new Expandable Bicon Shelter Hygiene System will replace the current BEAR latrine and shower/shave kit. Silver Flag began instructing on this unit this fall. Airmen will train on both systems until the old system is removed from inventory. Computer based training is being developed and will be available in 2015.

ETL 14-5, which provided guidance on the proper wear of Arc Flash PPE and USAF uniform combinations, is now consolidate in the latest revision of AFI 32-1064, Electrical Safe Practices. Additionally, the 32 series AFIs that cover water and fuel system operations have been consolidated into one instruction, AFI 32-1067, Water and Fuel Systems.

Finally, we worked with the A1 community in support of the Air Force Credentialing Opportunities On-Line. The AF COOL program will allow our airmen to earn a certification that aligns with their control/duty AFSCs and includes API AST inspector, wastewater treatment operator and water treatment operator certifications. This will further our airmen's technical and professional development while preparing them for success in the civilian sector. Visit the Air Force Virtual Education Center to review what credentials are available or consult your base education center for any questions.

SMSgt David M. Kledzik
3E4X1 Force Development Manager

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PEST MANAGEMENT

During 2014 the Air Force Civil Engineer Center consolidated command entomologist duties for five MAJCOMs and became fully staffed with two additional professional entomologists. These new Pest Management Professionals serve as focal points for AFSPC, AFGSC, AFMC, PACAF, and AETC. Additionally, AFCEC's subject matter expert for pest management led the development and implementation of a web-based version of the Integrated Pest Management Information System.

The web-based IPMIS is currently available and receiving positive feedback from users. The upgraded system allows users to incorporate GeoBase applications, integrate HAZMAT inventories and more. It also displays a potential for streamlining certification, pesticide approvals and contract coordination as well as monthly reporting.

During the May 2014 Utilization and Training Workshop, updates to skill level upgrade requirements were decided upon, resulting in both additions and subtractions from the Career Field Education and Training Plan. The most significant change involved the exclusion of the Operational Entomology Course from the 7-Level upgrade requirements list. CFETP updates are in progress and scheduled for completion in mid FY15.

Pest Management SMEs closed out the fiscal year with FY15 tasks in hand. SMEs from the field met in late September to collaborate on the research conducted in FY14 for the AFSC's manpower study. SMEs representing each of the MAJCOMs worked with the 1st Manpower Requirements Squadron to determine common and unique workload drivers. During this week the team worked diligently to validate historical data, contract operations and other factors to identify parameters for which Pest Management manpower should be allocated. Though the study will continue into FY15, the working group was a significant win and their continued collaboration will assist in the overall goal of providing a balanced distribution across the Air Force.

MSgt Charles E. Curnutte II
3E4X3 Force Development Manager

3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3

ENGINEERING

There are significant things to report regarding the enlisted Engineering career field. First and foremost, in March 2014, the proposed Career Field Education and Training Plan was approved by senior enlisted leaders at the Utilization and Training Workshop. All proposed changes were funded and are in the process of being added to all formal school and curriculums. The CFETP is scheduled to be published in the fall of 2015.

Strategic CAD/GIS software contracts are up for renewal (these changes should be transparent to the field). Autodesk 2014 has been approved for release and is the standard version for units. Surveying equipment (hardware/software) changes have been programmed; however, , do not send surveying equipment to DRMO or otherwise dispose of in the interim. New GPS/GNSS equipment management instructions have been created and will be sent out to the field shortly. In the meantime, please maintain the equipment and report to your MAJCOM representatives accordingly.

ADR modernization efforts continue to dictate changes to the career field. Earlier in the year, the Repair Quality Criteria Technical Order was rescinded, so please review ETL 13-3 for MAOS selection and RQC. The GeoExPT tool will see a much needed update and transition to a multi-user, multi-platform (desktop and web) system on an Autodesk engine to support the Joint Construction Management System mandated by the Joint Operational Engineering Board.

Our contingency training sites (Silver Flag, AFRC's Training Site, and ANG's Regional Training Sites) have also made significant changes to their programs. AFRC/ANG sites have expanded to include specialized topics of instruction to complement and reinforce upgrade and qualification training, as well as home-station and SORTS-specific training.

Finally, at the beginning of FY15, the Air Force announced the Credential Opportunities On-Line or COOL program which provides for Tuition Assistance funding for AFSC-specific credentials/certifications. The initial five programs were identified to span multiple grades and differing levels of experience. Funding is anticipated early CY15; however, please refer to the Air Force Virtual Education Center for more information.

SMSgt Rigo Chacon
3E5X1 Force Development Manager

3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3

OPERATIONS MANAGEMENT

2014 has been a busy year for our career field. Three monumental tasks included 1) data clean-up guidance sent out in preparation for TRIRIGA implementation; 2) 3E6 Specialty Training and Requirements Team meeting held at Sheppard AFB in August 2014; and 3) 3E6s were selected to be the subject matter experts on the Joint Tactical Radio System.

The Work Priority Implementation Plan was deployed Oct. 1, 2013 and the CEMAS Noun Dictionary Cleanup Guide followed in May 2014.The Work Priority Implementation Plan provides guidance on how we classify our work tasks; the CEMAS Noun Dictionary Cleanup Guide offers management tools to expose records that contain undesirable information. As we get closer to TRIRIGA implementation, it is critical that we continue to utilize both products to clean up our legacy systems and reduce migration workload. TRIRIGA will roll out to Andrews AFB late summer 2015 and after integration there, the system will be deployed to remaining bases at the rate of four per month until fielding is complete. Operations Flights must work closely with MAJCOMs and AFCEC on any preparation concerns. Training on the TRIRIGA system will be inserted into our 3- and 5-level upgrade training curriculum.

The Operations Management STRT evaluated the CFETP, associated Specialty Training Standards, the War Mobilization Plan and the Air Force Enlisted Classification Directory. Core training tasks were reviewed and adjusted to meet the future requirements under transformation and TRIRIGA implementation. At the 3E6 Utilization and Training Workshop, scheduled for the summer 2015, MAJCOM Functional Managers will vote in proposed changes from the STRT.

In line with direction from the July 2014 Education and Training Working Group, 3E6s will be the JTRS SMEs for Operations Flight, Fire and Emergency Management. We are currently developing training to meet this new requirement.

MSgt Amy Dare
3E6X1 Force Development Manager

3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1

FIRE EMERGENCY SERVICES

The Fire Emergency Services Air Force Manpower Standard was published after a four-year effort and is being implemented with a cross leveling plan to balance the risk across our installations. This effort will ensure that no one installation accepts a greater risk than another due to manpower shortages.

The firefighting vehicle ultra-high pressure technology implementation plan is well underway. More than 200 rapid intervention vehicles have or are in the process of being delivered to the field. Additionally, the first large Aircraft Firefighting P-19 vehicle utilizing UHP technology was built and has been delivered.

The way we deliver advance firefighting training to our DOD firefighters has undergone significant changes this past year.

The Total Force Virtual Learning Center is live and available to our DOD customers; this ".com" platform truly makes our training available anytime/anywhere. We converted our National Incident Management System 300/400 training course into a Train-the-Trainer class, enabling qualified instructors to deliver the material back at home station. Finally, a Fire Officer IV distance learning course is under construction. This DL course will tap into the BlackBoard learning platform approved and funded by AETC with a goal to increase student production capacity.

CMSgt Scott Knupp
3E7X1 Career Field Manager

3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1

EXPLOSIVE ORDNANCE DISPOSAL

3E8 Enlisted Developmental Team Boards vectored 146 master sergeant-selects, master sergeants and senior master sergeants. The objective of the EDP is to assist in the development of our EOD senior enlisted force, and to better vector these enlisted leaders to fill our Air Force Specialty-identified developmental/CIP positions.

The EOD Targeted Medical Care effort continues to see gains towards meeting the program objectives for improving the overall health of our EOD Airmen after 12 years of sustained combat operations. These objectives continue to focus on organizing unit personnel under a single primary care manager and designating a mental health care provider as well as conducting EOD flight leadership immersions. Our active duty units reported in 2014 that 95% were enrolled under one PCM, 96% were assigned to a mental health provider, and 98% had positive communications and opportunities for MTF/EOD immersions.

EOD completed its first 3E8 Nuclear Human Capital Deep Dive to identify strategic and tactical career field issues and action plans for resolution to better support nuclear deterrence operations. Leaders from across the EOD career field came together in a working group led by HAF/A1 and A10, with representatives from AETC and AFPC. The group identified 17 strategic issues in the areas of personnel and manning, training, publications and operational capabilities.

CMSgt Martin Cortez
3E8X1 Career Field Manager

3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3

EMERGENCY MANAGEMENT

The first active duty 3E991/SMSgt Enlisted Development Team was created that identifies five key leadership positions and five key development positions for senior master sergeant vectoring. All EM SMSgts will receive briefings on the new EDT program at the beginning of 2015 followed by the first EDT board in spring 2015.

The new 3E9X1 Career Field Training and Education Plan was published on 15 Dec. 14, and reflects a significant number of changes that will continue to build on 3E9X1 in-garrison and contingency skills. 5-level core tasks increased from 56 to 75 and 7-level core tasks increased from 0 to 11. The major changes include 1) new AFI 36-2201 formatting; 2) new enlisted professional military education information; 3) new specialty training standard; 4) new STS equipment training reference List; and 5) an updated AFQTP and Distance Learning Documentation Record. The new 3-level apprentice and 7-level craftsman courses will start on January 26 and March 26, respectively.

Our Air Force Certified Emergency Management program continues to gain momentum in the career field. One of the significant changes to the program in 2013 was the transition to an electronic application process, which significantly reduces time for applicants, reviewers, and approving officials. To date, 63 certifications have been awarded.

The Air Force EM training program underwent extensive restructuring that reduced the redundancy of course objectives, including creating or altering five courses. This saved the Air Force 81,000 hours of training time and about $1M and earned the Federal Government Distance Learning Association's "Innovation Award."

CMSgt Anthony Hatcher
3E9X1 Career Field Manager

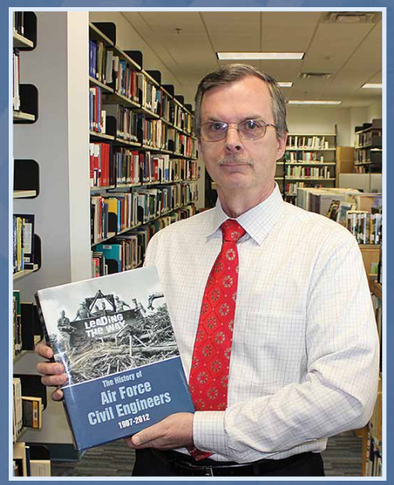
CE is a 2014 OUTSTANDING AIRMAN OF THE YEAR

Senior Airman Ariful Haque
374 CES, Yokota AB, Japan

Senior Airman Ariful Haque, a Water and Fuel Maintenance Technician at Yokota AB, led five Japanese National employees maintaining and repairing the Yokota Air Base bulk fuel storage area, Type III hydrant fueling systems, and high-level control valves, which enabled air operations at the sole Airlift Wing in the western Pacific. In this position, he led a storm pump renovation project that solved two years of flooding in US Forces Japan Headquarters, eliminating the risk to multiple networks vital to bilateral operations. Relying on his criminal justice background and language skills, he partnered with the local AFOSI Detachment to develop realistic scenarios for a joint training exercise for agents assigned to Japan. As a proud member of the Yokota AB honor guard, he established the first drill team in Pacific Air Forces and has performed as a Ceremonial Guardsman throughout the region promoting bilateral relationships.

Senior Airman Ariful Haque carries a plank away from a construction site in the Philippines in June 2014, during Operation Pacific Unity. He and other CEs from the 374th spent 31 days building two classrooms and renovating utilities at a school. (U.S. Air Force photo/Staff Sgt. Amber E. N. Jacobs/Released)

AFCEC Historian PUBLISHES MILESTONE WORK



"Leading the Way: The History of Air Force Civil Engineers," published in December 2014, captures more than a century of CE history and 30 years of research in one definitive work. The book traces the history of Air Force civil engineers from their roots as aviation engineers in the Army Air Corps through World War II, Vietnam, Desert Storm and post 9-11 operations in Iraq and Afghanistan.

"CEs always seem to get the job done," said Dr. Ronald Hartzer, the book's author and the former Air Force Civil Engineer Historian. "They didn't necessarily have the right tools, materials or equipment but they knew what the mission was and they knew they had to get it done and somehow figured out how to do it. I guess it's in their DNA. That's why they became engineers in the first place - to take on challenges like that."

Throughout the 800-page work, Hartzer said he tried to tell the human side of the career field's challenges and accomplishments.

"History is more than dates and facts. It's people. I wanted both the name and the emphasis of the book to be the history of Air Force civil engineers, not civil engineering. I wanted to keep the focus on the people."

Hartzer retired in January, ending a more than 31-year career chronicling civil engineers. His book is simply dedicated, "To the Air Force Civil Engineers who have 'Led the Way.'"

To obtain a copy of "Leading the Way: The History of Air Force Civil Engineers," contact AFCEC's Reach-Back Center at afcec.rbc@us.af.mil.

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Overseas Environmental	Steffanie Metzger, P.E.	DSN 945-3778 / (210) 925-3778
Pavements	Craig Rutland, Ph.D., P.E.	DSN 523-6439 / (850) 283-6439
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Ranges	Jon Haliscak	DSN 945-0643 / (210) 925-0643
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Structural Engineering	Robert Dinan, Ph.D., P.E.	DSN 523-6209 / (850) 283-6209
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Water/Wastewater Systems	John D. Bishop	DSN 523-6437 / (850) 283-6437

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RESOURCES

CE Portal – the first stop for all things Civil Engineering
https://app.eis.af.mil/a7cportal/

CE Facebook – "like" your career field
http://www.facebook.com/AirForceCE

CE FLICKR & CE YouTube – CEs in action, and in motion
http://www.flickr.com/photos/airforcece/
http://www.youtube.com/afcivilengineer

AFCEC Reach-Back Center – technical engineering support and questions
DSN: 312-523-6995; Comm: 850-283-6995; toll-free: 888-232-3721
Email:Afcec.rbc@tyndall.af.mil

AFCEC PA – general engineering support and information
DSN: 969-8008; Comm: 210-395-8008
Email: Afcec.pa@us.af.mil
URL: http://www.afcec.af.mil

E-Dash – environmental and sustainability guidance, tools and answers
URL: https://cs1.eis.af.mil/sites/edash/SitePages/Home.aspx

AFCEC Technical Information Center - research and reference assistance for the CE community
DSN: 312-523-6285 / 6138; Comm: 850-283-6285/6138
Email: tic@tyndall.af.mil

Basic Expeditionary Airfield Resources (BEAR) – mission-ready equipment for global reach and power
Contact: 49th Materiel Maintenance Group BEAR Reach-back
DSN: 312-572-5015
Email: 49.MMG.Operations.Center@holloman.af.mil

AFCAP – rapid response contingency contract tool
DSN: 523-6216; Comm: 850-283-6216
24/7 Reach-back: DSN 523-6995; Comm: 850-283-6995

AFIT – CE educational opportunities and class schedules
The Civil Engineer School
DSN: 785-5654; Comm: 937-255-5654
URL: http://www.afit.edu/ce/

Graduate School of Engineering & Management
DSN: 785-3636; Comm: 937-255-3636
Email: CESS@afit.edu
URL: http://www.afit.edu/en/

Force Development – online resources
For Everyone:
MyPers: https://gum-crm.csd.disa.mil/app/answers/detail/a_id/13759/kw/32e/p/8%2C9

For Officers:
MilBook: https://www.milsuite.mil/book/groups/32e-oat-ce-assignments

For Enlisted:
AFSC Sharepoint: https://cs3.eis.af.mil/sites/OO-EN-CE-A6/24048/default.aspx.
http://www.facebook.com/AirForceEM

For Civilians:
CE Career Field Sharepoint: https://cs3.eis.af.mil/sites/OO-MS-AF-25/default.aspx

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