



Air Force

# Civil Engineer

By Engineers. For Engineers.

Vol. 23 No. 2 Winter 2015



Extended Edition  
with CE Timeline

# 2015 Almanac



**Air Force**

# Civil Engineer

Vol. 23 No. 2 Winter 2015

# 2015 Almanac



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*On the front cover:* Airman 1st Class Connor Harrington, 374th Civil Engineer Squadron Pavement and Equipment apprentice, performs a spall repair at Yokota Air Base, Japan. From keeping the flightline mission ready to maintaining the roads and sidewalks, the work done by the group of Airmen known as the “Dirt Boys” keep Yokota’s mission going. (U.S. Air Force photo/Airman 1st Class Delano Scott/released)

*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, 2015.*

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# Civil Engineer

By Engineers. For Engineers.

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*Photos: (left to right) Airman Aaron Matedne, 48th Civil Engineer Squadron heavy equipment operator, cuts metal at Royal Air Force Lakenheath, England. After the metal is cut down, it’s disposed to the proper recycling facilities. (U.S. Air Force photo/Airman 1st Class Dawn M. Weber/released)*

*Airman 1st Class Fred Jones, 786th Civil Engineer Squadron heavy equipment operator, drives a tractor trailer vehicle during the Air Force Civil Engineer Center Tractor Trailer Training program, at Ramstein Air Base, Germany. (U.S. Air Force photo/Airman 1st Class Tryphena Mayhugh/released)*

*Staff Sgt. Justin Morrison, 90th Civil Engineer Squadron Pavements and Equipment, smooths out concrete poured outside the Chadwell Dining Facility on F.E. Warren Air Force Base, Wyoming. (U.S. Air Force photo/Senior Airman Jason Wiese/released)*

*U.S. Air Force and Japan Air Self-Defense Force civil engineers remove a runway light on the flightline at Misawa Air Base, Japan. The Airmen removed lights on the approximately 10,000 feet stretch of the flightline. (U.S. Air Force photo/Senior Airman Jose L. Hernandez-Domítilo/released)*

# Airmen Engineers, tell us your stories



For more than 50 years, from its founding by Maj. Gen. Augustus Minton in 1960, the CE Magazine has been a great way for us to share information within our organization. Its slogan is "By engineers. For engineers."

The magazine is intended to be a forum for all Airmen in civil engineering — to share big ideas and have discussion on the current issues facing the career field. However, to accomplish this and take advantage of the valuable resource we've inherited, we need your input.

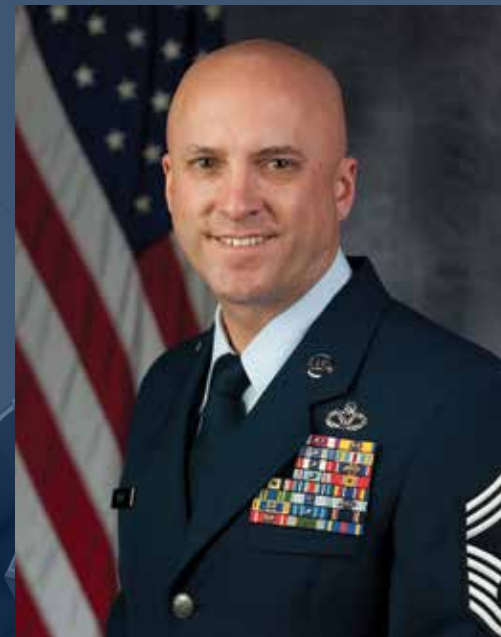
I am fortunate to have the opportunity to visit different sites and learn first-hand about what Airmen Engineers are doing and to learn many inspiring personal stories. Your stories, experiences and ideas deserve to be told and shared with others.

I challenge you to put your ideas forward in the magazine to get others thinking with you. Tell your story, or the story of one of your wingmen. My travels have convinced me there is great untapped CE Magazine content available; we just need you to turn on the spigot.

In talking with Airmen, it seems writing and exposing our ideas to potential feedback or critique are two barriers we need to overcome. Take a chance and take the authorship plunge, for yourself and for the CE family. As leaders, it is our responsibility to be able to communicate effectively in writing, whether it is an advocacy paper, e-mail or personal evaluation. It is also our responsibility to share our ideas and accomplishments of our teams so we can all learn and advance together. So give it a go, we will all learn something!

**Timothy S. Green**  
Major General, USAF  
Director of Civil Engineers

# Managers work to advance CE career fields



Approaching the end of my first year as your Chief, Enlisted Matters, much has been accomplished toward priorities, with an ample amount left to do.

Specific to training, our force development managers, or FDMs, and emergency services career field managers, or CFMs, have diligently worked toward advancing our career fields. From career field education and training plans, or CFETPs, to career development courses, or CDCs, and updated formal courses, our Air Education and Training Command training lifecycle is very much a living process for all 12 of our enlisted Air Force specialty codes. An overview from each FDM and CFM is detailed in the career field updates on pages 50-59. Special thanks must be given to our AETC Training Management team, Technical Training School instructors and CDC writers for their thoroughness and pride in preparing and delivering our training needs. I am very proud of our AETC team and the entire AFCEC staff for their work in continuing to prepare our engineers for our in-garrison responsibilities and advancing our expeditionary skills. In this year's

almanac you will see the picture of each FDM and CFM. It is my intent for our engineers to see who is leading our career fields and have the desire to one day replace them as a career field leader.

This has been the year of enlisted force development. By direction of the CMSAF, every career field established a developmental team, or DT, program. A DT program is not totally new for the CE enterprise as EOD and fire have been vectoring its master sergeants and senior master sergeants for years. New this year is a DT for our traditional AFSCs, and emergency management senior master sergeants. This year, all four CEM codes will develop a process to vector our chief master sergeants, as we target them for opportunities across the CE enterprise.

The initiative to work with industry leaders to bridge the gap between our formal training with an industry certificate is progressing well. The goal is to make available industry valued certification(s) for our transitioning personnel (whether separating or retiring) to be able to move into the private sector with a certificate tied to their career field that will help place them in a position consistent with their military experience.

Finally, with the emphasis on developmental special duty, it is my goal to allow as many NCOs as possible to experience the rewards of a special duty. I plan to work with the Enlisted Board of Directors (CMSAF and MAJCOM Command Chiefs) to add Airman dormitory leaders to the DSD process. Doing so will ease the selection process at the base level and open the aperture for Airmen across every AF career field to experience the rewards of leading our unaccompanied Airmen transitioning out of the training pipeline into the operational AF. It is going to be another great year, and I look forward to each challenge.

**Chief Master Sgt. John A. Wilde**  
Directorate of Civil Engineers, Chief of Enlisted Matters

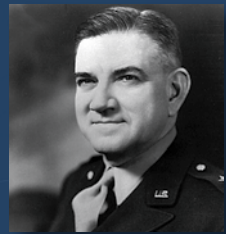
# Air Force Civil Engineers

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.

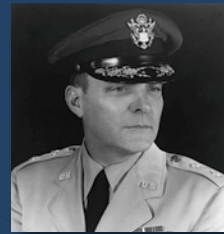
1944-1949 Director of Air Installations  
 1949-1954 Director of Installations  
 1954-1957 Assistant Chief of Staff, Installations

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



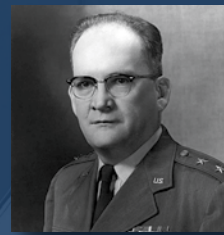
Maj Gen James B. Newman  
 Mar 1949 – May 1950



Lt Gen Patrick W. Timberlake  
 Dec 1950 – Jan 1952



Maj Gen Lee B. Washbourne  
 Jun 1952 – Jul 1957



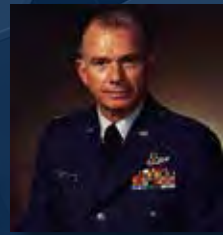
Maj Gen Augustus M. Minton  
 Jul 1957 – Jul 1963



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



Maj Gen Timothy S. Green  
 6 Mar 2014–present

# Deputy Air Force Civil Engineers

TITLES:

1963-1969 Associate Deputy Director for Construction

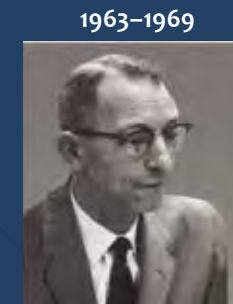
1969-1975 Associate Director of Civil Engineering

1975-1991 Associate Director of Engineering and Services

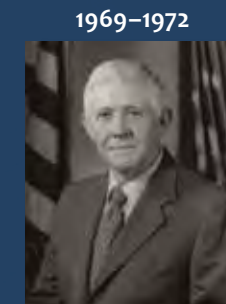
1991-1999 Associate Air Force Civil Engineer

1999-2014 Deputy Air Force Civil Engineer

2014-Present Deputy Air Force Civil Engineer



Mr. John R. Gibbens



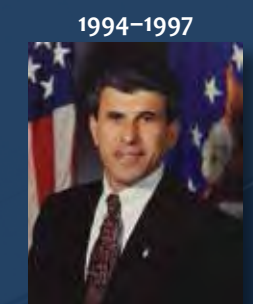
Mr. Rufus (Davy) L. Crocket



Mr. Harry P. Rietman



Mr. Gary S. Flora



Dr. Robert D. Wolff



Mr. Michael A. Aimone



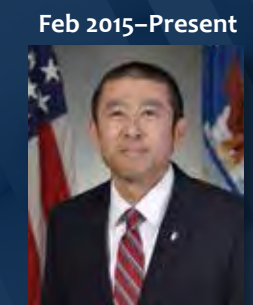
Ms. Kathleen I. Ferguson



Mr. Paul A. Parker

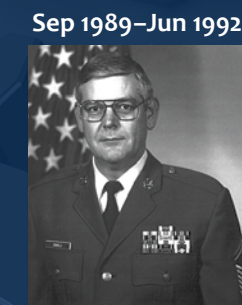


Mr. Mark A. Correll

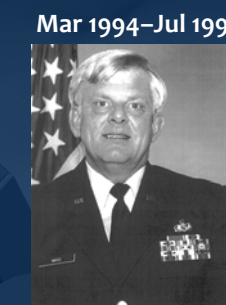


Mr. Edwin H. Oshiba

# CE Chiefs for Enlisted Matters



CMSgt Larry R. Daniels



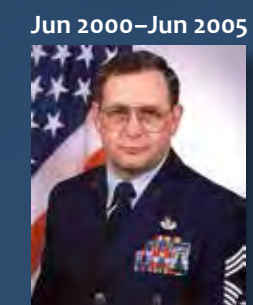
CMSgt Larry R. Ward



CMSgt Kenneth E. Miller



CMSgt Richard D. Park



CMSgt Michael Doris



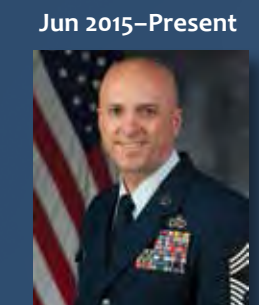
CMSgt Wayne Quattrone II



CMSgt Patrick D. Abbott



CMSgt Jerry W. Lewis



CMSgt John A. Wilde



**Maj. Gen. Timothy S. Green** is the Air Force Director of Civil Engineers, Deputy Chief of Staff for Logistics, Engineering and Force Protection, Headquarters U.S. Air Force. He is responsible for installation support functions at 166 Air Force bases worldwide with an annual budget of more than \$11 billion. He is also responsible for organizing, training and equipping the 52,000-person engineering force, and for planning, development, construction, maintenance, utilities and the environmental quality of Air Force bases worldwide valued at more than \$251 billion. This responsibility also includes services for housing, fire protection, aircraft crash and rescue, explosive ordnance disposal and disaster preparedness.

General Green entered the Air Force in 1987 as a graduate of the ROTC program at Texas A&M University. 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, General Green served as the Director of Installations and Mission Support for Air Mobility Command and then Air Combat Command.



**Edwin H. Oshiba**, a member of the Senior Executive Service, is the Deputy Director of Civil Engineers, Deputy Chief of Staff for Logistics, Engineering and Force Protection, Headquarters U.S. Air Force, Washington, D.C. He is responsible for supporting the Director of Civil Engineers by providing executive leadership, direction and technical knowledge to organize, train and equip a 52,000-person engineering force as well as development, construction, operation, maintenance, emergency response, readiness, housing and the environmental quality of Air Force bases worldwide.

Mr. Oshiba was commissioned in the Air Force in 1989 upon graduation from Santa Clara University. He commanded three civil engineer squadrons and an expeditionary Prime Base Engineer Emergency Force, or Prime BEEF, group and served in a variety of positions at garrison, major command and Headquarters U.S. Air Force levels. He retired in 2015 in the rank of colonel, last serving as the Chief, Installations Strategy and Plans Division, Headquarters U.S. Air Force, Washington, D.C. In that position, he led the development of installation support strategy, planning and future warfighting concepts to enable Air Force core missions. Additionally, he provided oversight and guidance for installation development planning; encroachment; National Environmental Policy Act compliance; installations governance; and civil engineer business process reengineering.



**Chief Master Sergeant John A. Wilde** is the Chief, Enlisted Matters, Headquarters U.S. Air Force, Directorate of Air Force Civil Engineers, Pentagon, Washington, D.C. He represents the highest enlisted level of leadership within the Civil Engineer enterprise. He advises The Director of Civil Engineers on matters affecting the civil engineering workforce with specific emphasis on readiness, morale, retention, training and work force utilization. He serves as the career field manager for 3E0X1 to 3E6X1 specialty codes, and the functional manager for wage grade civilians in civil engineering. CMSgt Wilde chairs the Air Force Civil Engineer Chiefs' and Airmen's Councils to review issues affecting the workforce and enlisted force development, communicating ideas and developing recommendations for senior leadership consideration.

CMSgt Wilde enlisted in the Air Force in August 1988 as a Structural Specialist and has served in numerous leadership positions within the Civil Engineer career field. He has been stationed at locations in Japan, Texas, Alaska, Hawaii, Washington, D.C., New Mexico, Virginia, Belize, Honduras, Kyrgyzstan, Kuwait, and Iraq. Chief Wilde has deployed in support of Operation Southern Watch, Enduring Freedom, Iraqi Freedom, New Dawn and U.S. Southern Command's New Horizons mission. Additionally, from 1993-99, he served as a Military Training Instructor, culminating his duties as Noncommissioned Officer in Charge, Military Drill & Ceremonies, 737th Training Group, Standardization-Evaluation Team.

# Headquarters Air Force A4C Divisions

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



## Energy and Environment Division, A4CE

Throughout FY15, 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 constrained budget, we have seen more emphasis on third-party programs, such as Energy Savings Performance Contracts, Utility Energy Service Contracts, Power Purchase Agreements and Enhanced Use Leases to meet Air Force energy goals and objectives while supporting energy conservation targets established in legislation and executive orders.

The Air Force awarded a \$19.2M UESC in FY15 at Tinker Air Force Base, Oklahoma, to decommission the central steam system and improve energy systems throughout the base, and a \$0.9M ESPC at Laughlin AFB, Texas, to install LED fixtures and improve energy monitoring and control systems. Another four UESCs estimated at \$18.5M and two ESPCs estimated at \$47.7M are expected to be awarded by the end of the calendar year. In addition to expanded third-party investment, the Air Force continued to integrate direct energy conservation expenditures into its asset management approach by executing \$18M in Air Force-funded projects and over \$42M in Office of the Secretary of Defense-funded projects.

The Air Force continued its progress toward renewable energy goals by issuing a Notice of Intent to Award for a 28.2 million watt solar project at Vandenberg AFB, California, and is considering expanding the Landfill Gas to Energy Plant at Joint Base Elmendorf-Richardson, Alaska. An NOITA was also issued recently for a 12.6 million watt solar project on a capped landfill site at Otis Air National Guard Base at Joint Base Cape Cod, Massachusetts.

To mitigate energy vulnerabilities and increase energy resiliency and reliability, the Air Force privatized two utility systems in FY15 at a first year cost of \$3.6M. This is estimated to save the Air Force \$9.1M over 50 years by avoiding line loss from utility systems whose condition had fallen below the industry standard. Additionally, the Air Force executed \$98.1M in ongoing contracts for systems privatized before FY15. The Air Force

has privatized 68 utility systems since 1998 under the OSD-mandated utilities privatization program.

Lastly, the Air Force won 10 individual and installation level Federal Energy Management Program awards for 2015. This is the largest number of awards won in a single year by any service in the Department of Defense.

In FY15, the Air Force Environmental Program continued to invest in natural infrastructure to maintain regulatory compliance, reduce risk and continuously improve the mission and the environment, in alignment with the Secretary's and Chief's priorities. With 182 installations and 40 range complexes covering 9 million acres of land, the environmental program manages habitats for 115 threatened and endangered species, 598,000 acres of managed commercial forest, 21,069 archaeological sites and 6,924 historic structures. In addition, the environmental program provides compliance services for infrastructure and industrial operations that include maintaining 416 Clean Water Act permits and 167 Clean Air Act permits, disposing of approximately 7,000 tons of hazardous waste and diverting 792,000 tons of nonhazardous solid waste annually.

In 2015, the division finalized the new Air Force Instruction 32-7091, Environmental Management Outside the United States, the culmination of almost two years of work. The new publication incorporates two Department of Defense Instructions for overseas compliance and remediation and provides a comprehensive source for overseas environmental guidance.

The Environmental Restoration program continued to show great progress in cleaning up contaminated land and returning it to mission use. The final two performance-based remediation contracts were awarded for Joint Base Charleston and Scott AFB, completing the acquisition of PBRs for installations within the U.S. In FY15, the Air Force achieved Response Complete at more than 470 sites, and Site Closeout at over 600 sites, exceeding its projected goals. Over 54,000 acres of former ranges were returned to active mission use.



## Facilities Division, A4CF

The mission of the Air Force Facility Management program is to provide policy, resourcing and oversight for military construction; non-appropriated funds; family and unaccompanied housing; and facility sustainment, restoration, modernization and demolition projects. Although the FY14 Military Construction program restored funding to near-historic levels compared to FY13, the FY15 program decreased by \$366M and remains significantly short of the Air Force's needs. The Air Force requested \$955M in FY15 for Active, Guard and Reserve MILCON programs, and funded the minimum essential amount in order to free resources to support higher-priority Air Force warfighting capabilities. The 39-project program affects 20 states/territories and two countries. The FY16 MILCON budget submission developed by the division reached the highest levels in more than a decade, at \$1.6 billion, and begins to revitalize deferred infrastructure recapitalization. Both the FY15 and FY16 MILCON programs support the Air Force's strategic priorities of ensuring we remain ready, capable and viable to execute the Defense Strategic Guidance over the near and mid-term.

On the Sustainment, Restoration and Modernization, and Demolition front, the division updated and coordinated publication of AFI 32-1032. The changes address new policy guidance and updated roles and responsibilities.

The division worked more than 90 repair and unspecified minor construction project packages, securing approval for 72 repair projects (worth more than \$1B) and three laboratory revitalization unspecified minor construction projects (valued at \$7.7M) this FY. The division also processed 33 MILCON notification packages and 10 reprogramming packages for approval by the Deputy Assistant Secretary of the Air Force for Installations and notification to Congress.

The Housing Program ensures Air Force families and unaccompanied members are provided quality homes and support services worldwide. The Air Force managed a \$327M Operations

and Maintenance Program that provided management services, leasing, utilities, maintenance and furnishings for more than 70,000 government-owned and privatized family housing units in FY15. Within this program, the Air Force planned and executed 89 housing maintenance and repair projects and programmed for more than \$90M to sustain and modernize the overseas government-owned family housing inventory in PACAF and USAFE. To support unaccompanied members and meet DoD's goal to maintain 90 percent of the Air Force dormitory inventory at an adequate rating, the Air Force awarded a \$13.5M, FY15 project to replace a permanent party dormitory at Hanscom AFB. Additionally, \$133M was earmarked in four FY16 projects to replace one basic military training dormitory at Joint Base San Antonio and three permanent party dormitories at Offutt, Ellsworth and Altus AFBs.

The Air Force is also conducting environmental studies to support privatization of the remaining 100 government-owned homes at Wright-Patterson AFB, now projected to close in September 2017.

In FY15, the Air Force deployed the DoD-mandated information management system, Enterprise Military Housing, for operations and inventory management of family and unaccompanied housing and furnishings assets at 46 locations in the Continental United States, and continues to deploy eMH at four Continental United States installations and one remaining overseas location. The Air Force began deploying the eMH Leasing Module in September 2015 for visibility and accountability of Air Force-funded leases.

## Installation Strategy and Plans Division, A4CI

The Enterprise Wide Installation Planning team made great strides this year in several areas. Support to the Air Force Encroachment Management Program resulted in contracting external Installation Complex Encroachment Management Action Plans for 16 installation complexes as well as one

regional ICEMAP. Additionally, the Air Installation Compatible Use Zone AFI was updated and published, and the team began integrating climate adaptation, including new floodplain guidelines into encroachment management and installation sustainment. Furthermore, the Air Force Readiness and Environmental Protection Initiative program also proved successful this FY, awarding \$8.2M in FY15 REPI funds from OSD. These funds will protect 12,000 acres on Air Force installations from future mission encroachment. Additionally, thanks to the efforts of the AFCEC Functional Management Office, NexGen IT development is nearing completion with the go-live date on the Air Force network scheduled for Joint Base Andrews on Nov. 2. Sixty other installations are scheduled to make the same transition in FY16.

In light of Civil Engineer workforce reduction by over 3,700 since 2007 and the standup of the Air Force Installation and Mission Support Center, A4C, AFCEC and all MAJCOM CEs approved, via the CE Board, the CE Capabilities Integration Initiative. This initiative aims to streamline CE's business processes by capitalizing on our continued emphasis on operationalizing asset management principles and deploying key capabilities that strengthen CE's installation support into the future. Through the CE Capabilities Integration initiative, more than 30 process maps were developed for strategic planning, execution planning, requirements identification and asset visibility. Additionally, the team has initiated several pilot efforts: (1) the CE Flight Plan to provide CE strategic objectives and end states aligned to Air Force goals and core mission needs; (2) the Execution Support Plan to identify specific actions to achieve objectives in the CE Flight Plan, but over a single Future Years Defense Plan (5-year FYDP); and (3) facility space optimization to match facility requirements against existing assets at an Air Force enterprise level.

The resultant roles and responsibilities from these efforts were used to inform Program Action Directive 14-04 and CE's PAD Annex F, and will influence the associated Programming Plan. The initiative continues to proceed with the implementation of Doctrine, Organization, Training, Materiel, Leadership,

Personnel, Facilities and Policy requirements of the processes across four asset classes: built infrastructure, natural infrastructure, human capital and equipment. During these efforts, the team has been coordinating with stakeholders at SAF/IE, AF/A4C, AFIMSC and AFCEC to ensure alignment across all CE transformation efforts.

In addition to the division's crucial support for the first Engineer Flight Plan in 2015, its contributions to the development of the Air Force's Strategic Master Plan and Air Force Future Operating Concept resulted in engineer equity in the Air Force's foundational strategic documents. Furthermore, involvement in various wargames, such as Future Games 2015, which projected future capabilities against expected threats in the 2035 timeframe, exercises, RAND studies and concept development efforts ensured engineer considerations were at the forefront of various future concepts. This focus positioned engineer installation support to empower Air Force and joint combat power as an integral part of future defense strategy.

## Sustainment Division, A4CS

Major areas of focus for the Sustainment Division are Air Force Common Levels of Service, Operations Management, Real Property Accountability, Space Management, Facilities Operation Efficiencies and Strategic Sourcing, Joint Basing, and Civil Engineer Officer and Enlisted Career Field Management. During 2015, the division revised the remaining three AFIs to complete the rewrite of the 23 AFIs managed by the division, meeting the Chief of Staff of the Air Force's intent of streamlining AFIs to focus policy and guidance. The AFCOLS team updated 20 of 41 functional areas as part of the annual change process. The intent is to refocus the program on resource and risk-loaded metrics, to better inform the Air Force Corporate Structure about how resource decisions translate to base-level services for our Airmen.

Throughout FY15, the Real Property Program continued real property asset accountability and financial reporting preparation for Air Force and DoD Financial Improvement and Audit Readiness assertion readiness. FIAR is a top priority for the



DoD and the Air Force. Under the DoD FIAR Guidance, Real Property is considered one of five mission-critical assets and a key assessable unit. The DoD FIAR audit assertion date is Sep. 30, 2017 and the Air Force Real Property assertion date is Sep. 30, 2015.

Key achievements in FY15 include: completing the Discovery Work Breakdown Structure of the Real Property Financial Improvement Plan; continuing to manage five initial Corrective Action Plans; completing a rewrite of the Real Property Accountability Instruction, AFI 32-9005; aiding the preparation of a new system of record, NexGen IT; fielding a more accurate, complete, and timely Real Property inventory; and representing the Air Force at various Office of the Undersecretary of Defense for Acquisition, Technology and Logistics working groups advocating, defending or shaping DoD Real Property policy and directives.

Within Operations Management, Cybersecurity of Industrial Control Systems became an area of focus for the division with the stand-up of the CSAF's Task Force Cyber Secure. The division managed the TFCS Infrastructure Line of Effort to help identify and prioritize the most critical ICS to ensure mission assurance across the Air Force's five core mission areas.

Finally, the Joint Base team addressed multiple resource-related memorandums of agreement, including increasing Joint Basing Army and Air Force Exchange Service dividends, resolving current year execution bills, and solving a four-year utility privatization issue resulting in significant cost savings for the Air Force.

## Readiness Division, A4CX

In 2015, the Readiness Division conducted a full rewrite of all 10-25 series AFIs and Air Force Manuals. This effort succeeded in aligning the Emergency Management Program with DoD and National Standards, consolidating publications and tiering requirements to comply with AFI 33-360, Publications and Forms Management. The division also worked closely with

Joint Staff and the Service Engineers to conduct a rewrite of Joint Publication 3-34, Joint Engineer Operations, completing another step in aligning joint doctrine with how Airmen Engineers support today's war fighter.

The Emergency Services Program facilitated a multi-agency response effort in 2015 that provided fire protection support for President Barack Obama during his visit to Kenya and supported the DoD Fire Emergency Services Working Group as it redrafted the DoD FES Program Instruction. We also had multiple joint engagements with the Joint Service Explosive Ordnance Disposal Program Board; participated in the Joint Staff Requirements Working Group in drafting a new Joint Doctrine Publication on EOD; and participated in the National Defense Industrial Association Global EOD Conference where the Director of Civil Engineers provided the State of the Service brief on Air Force EOD. As part of the Emergency Medical Working Group, we assisted in reorganizing the Emergency Medical Service response effort for the Air Force Enterprise. In the Chemical, Biological, Radiological and Nuclear arena, the division played a critical role in leading, developing and advocating for all priority Air Force CBRN defense needs within the Air Force and OSD portfolios. Our efforts were captured in the 2015 Air Force CBRN Defense Modernization Portfolio and executed through the Modernization Working Group.

The Air Force RED HORSE enterprise continues to provide critical capabilities to Combatant Commands on behalf of our nation. We centralized the majority of program management responsibilities at AFCEC to provide the proper training and equipping of RED HORSE Airmen. For Global Force Management, we provided oversight of 47 enduring Civil Engineer Institutional Force and Joint Engineer Tasks. In addition, the Afghanistan-Pakistan Hands Program, which was established in 2009, continued to help win the war in Afghanistan by placing 14 AFPAC Hands "in positions of strategic influence to ensure progress toward achieving U.S. government objectives in the Afghanistan-Pakistan region." Finally, the division supported the Installation Support Panel

as it successfully advocated for more than \$891M in Combat Support requirements within the FY16 President's Budget.

## Financial Management Office, CE FMO

The division began the fiscal year with authorization from the Continuing Resolution Authority to incur limited obligations. When the FY15 budget was passed, it required a minimum of amount of funds to be spent on Facilities Sustainment, Restoration and Modernization. This level, called the floor, was \$1.793M (not including civilian pay) and was further segregated into sub-floors for each budget activity. In February we received our initial distribution of funds to begin normal operations; MAJCOMs and AFCEC received \$981M, which was 55 percent of the FSRM floor and 61 percent of the FY15 President's Budget or PB.

By July, several other funding pushes resulted in the distribution of an additional \$514M (83 percent of FSRM floor and 94 percent of the PB). In August and September, we postured MAJCOMs and AFCEC to receive an additional \$248M (97 percent of FSRM floor and 109 percent of the PB). SAF/FMB also introduced a new method of calculating the FSRM floor that included funds that MAJCOM's migrated into FSRM accounts. Migrating funds into FSRM enabled the MAJCOMs to target their critical infrastructure priorities on their timeline. This allowed the Air Force to prioritize scarce O&M funds for other programs while still meeting the FSRM floor.

Additionally, the division continues to support the transformation of funding from HAF to AFMC and AFIMSC by providing year-of-execution expertise and advocacy within the Air Force corporate structure and financial management meetings. This transition will continue through FY16 until AFIMSC reaches full mission capability.

Continuing on the success of last year, the division hosted 26 world-wide virtual training events. Topics included,

but were not limited to, Defense Enterprise Accounting and Management System, Using TRIRIGA to Determine Reimbursements, and CE O&M Program Fundamentals. CE Resources Worldwide and Turning Toward Home, the main events of last fiscal year, were joined by a new half-day training event, FY15 Kickoff, providing more than 1,200 CE and Financial Management personnel with the latest updates on the new fiscal year. CE Resources Worldwide and Turning toward Home provided nearly 3,300 personnel with training and CE credit. In addition to the large virtual conferences, the division provided a Resources Foundation Series to ensure personnel were able to leverage all the tools at their disposal successfully. In total, the division provided 8,048 training opportunities to CE and Financial Management personnel worldwide.

## 2015 Statistics

### A4C CE Personnel

(Numbers represent assigned personnel, as of 30 Sep 15)

Active Duty: 45  
Reserve: 8  
Civilians: 32  
Contractors: 71



# AFIMSC

JB San Antonio-Lackland, Texas  
 ASK.AFIMSC@US.AF.MIL  
 210-395-1900  
 DSN 969-1900



Maj Gen Theresa Carter  
Commander

Col Gregory J. Reese  
Vice Commander



Mr. Terry Edwards  
Executive Director

CMSgt Jose A. LugoSantiago  
Command Chief Master Sergeant

## MISSION

Deliver globally integrated combat support and shape the foundation of America's Air, Space and Cyberspace power

## VISION

One team revolutionizing combat support ... agile, innovative, networked ... warfighters supporting warfighters!

The Air Force activated the Air Force Installation and Mission Support Center (Provisional) Aug. 8, 2014, at Joint Base Andrews-Naval Air Facility Washington, Maryland. On Oct. 1, 2014, six Air Force organizations moved under Air Force Materiel Command in a step toward integrating mission support activities and forming AFIMSC's foundation. Four field operating agencies — Air Force Civil Engineer Center, Air Force Financial Services Center, Air Force Installation Contracting Agency and Air Force Security Forces Center — were reassigned to AFMC and designated as primary subordinate units, or PSUs, under AFIMSC. Additionally, the Air Force Financial Management Center of Expertise and the Air Force Services Activity were realigned from the Air Force Cost Analysis Agency and the Air Force Personnel Center, respectively, to the command and were also designated as PSUs.

AFIMSC activated April 6, 2015, and conducted its stand-up ceremony May 5, 2015. The center is headquartered at Joint Base San Antonio-Lackland, Texas. In addition, AFIMSC has a detachment collocated with nine major commands and the Air Force District of Washington to ensure direct support to the mission.

The organization provides the Air Force with a single intermediate-level headquarters staff supporting AF-wide installation and expeditionary support activities with a \$10B annual budget in support of 77 installations, nine major commands, and two direct reporting units. While driven by fiscal realities and a desire to reduce costs and create efficiencies, AFIMSC also provides an opportunity to leverage best practices and standardize support across all Air Force installations and mission support activities.

Headquarters AFIMSC is organized into three major directorates with Civil Engineering professionals embedded

throughout the entire organization to deliver resource, operations, planning and programming, and emergency services capabilities for commanders at all levels within the Air Force.

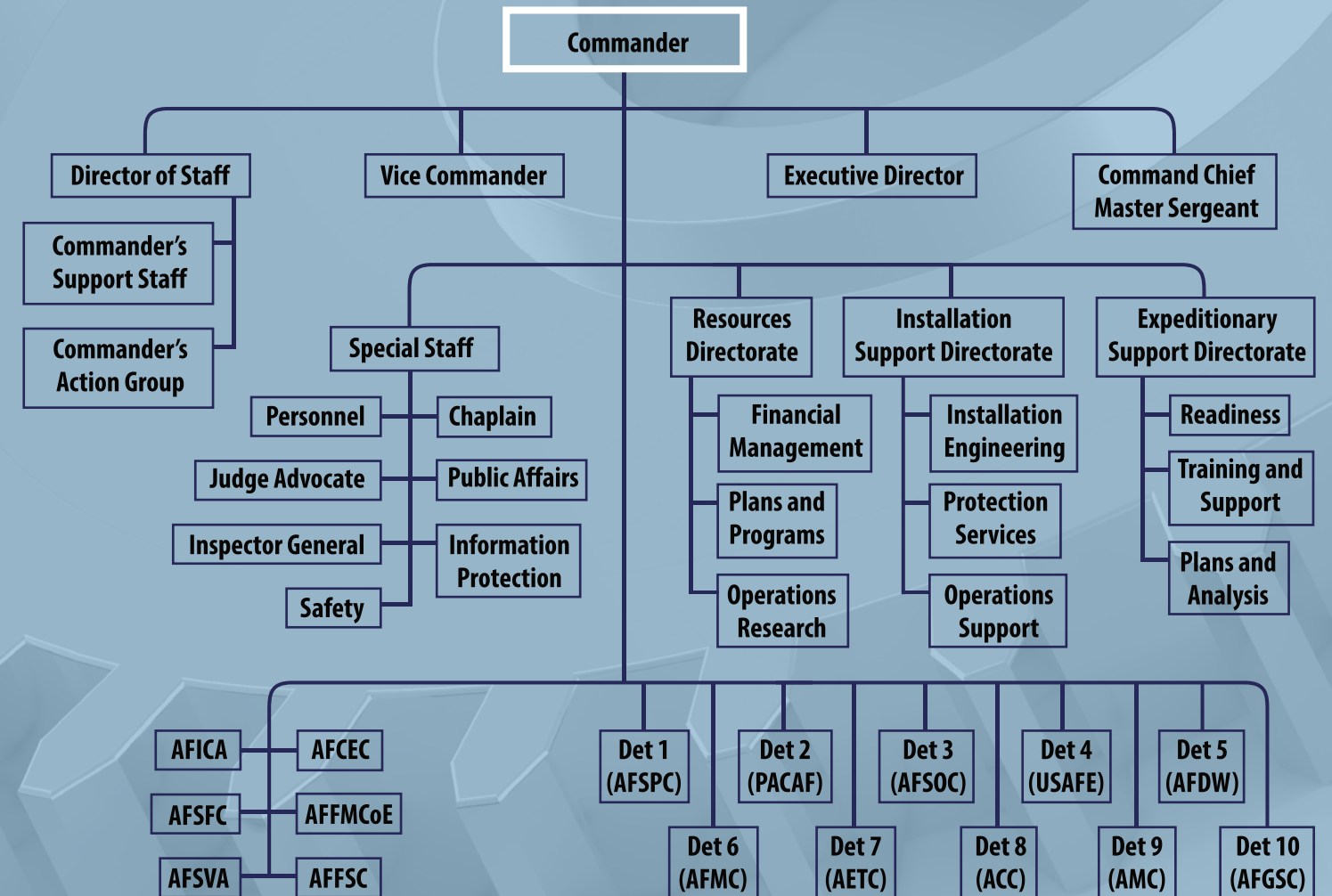
The directorates and their core capabilities are:

### Installation Support Directorate (IZ)

The Installation Support Directorate provides development planning and maintenance of installations, facilities, built infrastructure (including communications), natural infrastructure, and energy. Primary focus areas include asset visibility; property accountability; subject matter expertise (such as consulting); delivery of products and services; facility and infrastructure planning (such as military construction); and emergency services, such as fire and emergency services, explosive ordnance disposal and emergency management.

While the Civil Engineer capability spans the HQ AFIMSC staff, the largest footprint of CE personnel resides within the Installation Engineering Division, led by Col. Andra Clapsaddle. Division capabilities include:

- Installation and Mission Support, or I&MS, implementation guidance for Air Force policy and standards to commanders and management and oversight of Civil Engineer organizing, training and equipping programs
- Integrated planning, programming and requirements identification to leverage opportunities across the built and natural infrastructure in support of installation commanders
- Engineering technical reach-back support for built and natural infrastructure programs including data evaluation for use in process improvement, budgeting and execution



### Expeditionary Support Directorate (XZ)

The Expeditionary Support Directorate provides worldwide expeditionary I&MS capabilities through its Readiness, Plans and Analysis, and Training and Support Divisions to customers at nine MAJCOMs and 77 installations. The directorate provides operational-level planning and support to the warfighter through execution of its functional area manager duties for all I&MS capabilities and the management of operational readiness requirements for more than 900 core unit type codes. The directorate also provides Airmen across the I&MS enterprise access to formal mission-ready training and functional-specialty training, as well as analysis of current and future agile combat support mission requirements.

### Resources Directorate (RM)

The Resources Directorate provides capabilities required to operate AFIMSC in concert with subordinate PSUs and detachments and in coordination with MAJCOM partners and installations. Primary focus areas include funds control and management, requirements consolidation and prioritization, strategic planning, programming, execution, resourcing and governance, to include assessment.

Some of the major accomplishments of HQ AFIMSC in FY15 include:

- Completed adjudication of PAD 14-04 and its 23 functional annexes, using a fast-track approach for coordination
- Hired more than 300 new military and civilian employees
- Accomplished 34 business process re-engineering events
- Conducted 19 HQ, Detachment and PSU activation and change of command ceremonies
- Defined and began transferring capabilities to AFIMSC (HQ, Detachments and PSUs) per PAD 14-04 and the capabilities libraries
- Completed the strategic basing process and permanently located the HQ at Joint Base San Antonio-Lackland from the provisional location at Joint Base Andrews. Major efforts included relocating three agencies to new facilities and resourcing and installing a secure communications capability for the headquarters staff
- Implemented a strategic messaging campaign through avenues such as Ask AFIMSC email account, SAF EPIC, CORONA, monthly MAJCOM CV Updates, virtual Commander's Calls, road shows and many other MAJCOM and installation briefings



## AFIMSC Detachments

When the Air Force Installation and Mission Support Center officially activated on April 6, 2015, so did its 10 detachments that are collocated with nine major commands and the Air Force District of Washington. The detachments are designed to provide effective and efficient installation and expeditionary combat support capabilities to the commanders and mission partners they serve. They provide responsive synchronization and management of AFIMSC assets to address MAJCOM-specific I&MS priorities and concerns, proactive solutions to emergent requirements and issue resolution at the lowest level.

During this first year of AFIMSC operations, detachments provide a resource of continuity and depth of knowledge while developing their role as a conduit among the missions in the field, AFIMSC headquarters in San Antonio and the center's six PSUs.

Also, during the first year of AFIMSC mission capability transition and execution, many of the detachment accomplishments listed include projects that were completed in partnership with retained MAJCOM staffs or transferred for completion to the detachment from the MAJCOM. Some detachments began transfer of capabilities earlier than others, while some were sufficiently staffed to take on missions sooner than others.

### Detachment 1

MAJCOM/DRU Supported: Air Force Space Command  
Location: Peterson AFB, Colorado  
Commander: Col. Anthony Ramage  
Cmcl: (719) 554-7900 / DSN: 692-2003  
AFIMSC Det 1 Workflow (AFSPC): AFIMSCDet1.DETAFSPC.Workflow@us.af.mil  
Personnel as of Sept. 30, 2015: 37  
Active Duty: 13  
Reserve: 4  
Guard: 0  
Civilian: 19  
Contractors: 1

Annual accomplishments for FY15:

- Awarded a \$299M, 50-year utilities privatization contract for Vandenberg AFB. After the transition period, the UP contractor plans to invest approximately \$11 million in the first three years bringing the systems up to industry standards
- Awarded cyber mission forces projects at Joint-Base San Antonio and Scott AFB. Collectively, these renovation projects bed down four large Cyber Operations Squadrons and a Cyber Operations Group. Total cost of all projects is \$30M
- Coordinated a Tiger Team in support of Buckley AFB electrical and infrastructure. The combined AFIMSC Det 1, AFSPC A4 and A2/3/6, and AFCEC team assisted Buckley in developing a course of action to improve the system and presented eight issues and 39 actionable items that will benefit infrastructure reliability
- Completed \$13.8M of renovations to consolidate 30 space wing launch functions as Phase 1 of a greater consolidation program; and awarded \$61 million worth of renovation construction for Phase II

### Detachment 2

MAJCOM/DRU Supported: Pacific Air Forces  
Location: Joint Base Pearl Harbor-Hickam, Hawaii  
Commander: Col. Michael Addison Jr.  
Cmcl: (808) 449-3810 / DSN: (315) 449-3810  
AFIMSCDet2.DETPACAF.WORKFLOW@us.af.mil  
Personnel as of Sept. 30, 2015: 60  
Active Duty: 28  
Civilian: 32

Annual accomplishments for FY15:

- Garnered more than 90 percent of AF's RPMC budget; 75 projects totaling \$73M in MFH funds were approved and executed
- Developed a Japan Housing Optimization plan for 12,491 homes at Yokota, Misawa and in Okinawa to identify surplus Military Family Housing and utilization of host nation provided facilities
- Awarded a \$27M Improve Family Housing MILCON for Misawa AB to install air conditioning in 1,360 MFH units which will complete the second of three phases
- Supported National Historic Preservation Act meetings on Saipan and Tinian to pave the way for release of a revised draft Environmental Impact Statement in early FY16 in support of an alternate divert airfield initiative, clearing the way for development of an additional tanker aircraft operating location in the Western Pacific
- Coordinated the F-35 Planning Charrette in support of FY17 MILCON program documents for F-35A bed down at Eielson AFB; public hearings for the EIS received overwhelming public support in September 2015
- Represented PACAF for AF-wide manpower study to validate core tasks and workload drivers for nine CE specialties and updated 20-year-old standards to help drive rebalance of manpower across the AF enterprise
- Provided SMEs to accompany the IG team supporting five site visits and partnered with CE IG to develop a TDY schedule for FY16 to mitigate gaps during inspections

### Detachment 3

MAJCOM/DRU Supported: Air Force Special Operations Command  
Location: Hurlburt Field, Florida  
Commander: Col. Travis Harsha  
Cmcl: (850) 884-2659 / DSN: 579-2659  
Workflow: AFIMSCDet3.AFSOC.Workflow@us.af.mil  
Personnel as of Sept. 30, 2015: 12  
Active Duty: 4  
Civilian: 8

Annual accomplishments for FY15:

- Supported HQ AFSOC on the award of AF and SOF operations and maintenance facility projects for basing actions in the Pacific Theater and sustainment, restoration and modernization of facilities and infrastructure at AFSOC installations
- Supported HQ AFSOC and 27th Special Operations Wing on the reconfiguration and 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 worldwide

### Detachment 4

MAJCOM/DRU Supported: U.S. Air Forces in Europe and Air Forces Africa  
Location: Ramstein Air Base, Germany  
Commander: Col. Steven Sweeney  
DSN: 314-480-6331  
Workflow: AFIMSCDet4.DETUSAFE.WORKFLOW@us.af.mil  
Personnel as of Sept. 30, 2015: 74  
Active Duty: 36  
Civilian: 38

Annual Accomplishments for FY15:

- Following activation, Det. 4/CE managed the USAFE/AFAFRICA FY15 sustainment, restoration and modernization program portfolio encompassing more than \$170M in design and construction projects
- Integral contributor to planning and coordination of Air Force European Infrastructure Consolidation Program, to include basing and bed down support for USAFE staff through initial site planning, concept development and program management
- Initiated a major GeoBase IT platform change for conducting geospatial data analysis and integration with other AF systems and map visualization. The Geo Portal enables all USAFE installations to collect and analyze complete spatial inventories of natural, manmade and virtual assets. The capability will be centrally managed and hosted by Det. 4 staff from the Information Processing Center, Ramstein AB
- Converted all USAFE/AFAFRICA installation geospatial information — more than 1.1M data records — across 4,000+ database tables into the DoD data standard format; process was achieved in close coordination with each installation resulting in no interruption to base operations

### Detachment 5

MAJCOM/DRU supported: Air Force District of Washington  
Location: Joint Base Andrews, Maryland  
Commander: Col. Christoff Gaub  
Cmcl: (240) 612-1911 / DSN: 612-1911  
Workflow: AFIMSCDet5.AFIMSC.workflow@us.af.mil  
Personnel as of Sept. 30, 2015: 11  
Active Duty: 5  
Civilian: 6

Annual Accomplishments for FY15:

- Led MILCON planning and programming efforts in support of the \$331M Presidential Aircraft Recapitalization Program
- Awarded a \$34M airfield drainage repair project for Joint Base Andrews, which ensures water runoff on the base is handled effectively and in compliance with all environmental standards
- Began implementation and training at 11 CES for Joint Base Andrews, which was chosen as the lead base to field NexGen/TriRiga. NexGen will replace a number of legacy systems that are becoming obsolete and will greatly enhance operations at the CE Squadron
- Executed 190 VIP Protective Support Activity missions (48% of AF total of 393 missions), 18,000 man hours supporting Secret Service and Department of State missions ensuring the safety and protection of the president and other senior leaders

### Detachment 6

MAJCOM/DRU Supported: Air Force Materiel Command  
Location: Wright-Patterson AFB, Ohio  
Commander: Col. Shawn Moore  
Cmcl: (937) 257-3732 / DSN: 787-3732  
Workflow: AFIMSCDet6.CCA.CommandSection@us.af.mil  
Personnel as of Sept. 30, 2015: 47  
Active Duty: 17  
Civilian: 28  
Contractors: 2

Annual Accomplishments for FY15:

- Convened AF Industrial Energy Summit, a lean event to assist installations and mission partners in defining opportunities for third-party financed initiatives, including Utility Energy Service Contracts and Energy Savings Performance Contracts; mission partner-centric UESCs and ESPCs represent more than half of AFMC's \$582.3M third-party pipeline
- Seamlessly integrated AFIMSC into the AFMC Agile Combat Support strategic planning and programming process ensuring core function lead integrator oversight of the base and protect enterprise portfolio
- Executed award of \$103M in AFMC-funded design and construction projects and an additional \$49 million in AFCEC centrally funded projects
- Enabled the deployment of 129 AFMC warriors to 10 worldwide locations
- Supported 51 Secret Service VIP taskings, expending over 11,000 man-hours aiding and protecting the president, vice president and other heads of state
- Responded to 8,997 fire emergency service-related emergencies, including 216 off-base responses under mutual aid agreement spanning from aircraft crash and recovery to multiple vehicle accidents to structural fires
- Handled 501 MAJCOM-wide explosive ordnance disposal-related incidents, providing 23,187 man-hours resulting in making safe 12,917 ordnance items, including the destruction of 43 large missile motors in support of the START II treaty and the clearance of 65,449 acres of ranges

### Detachment 7

MAJCOM/DRU Supported: Air Education and Training Command  
Location: Joint Base San Antonio-Randolph, Texas  
Commander: Col. Brian Murphy  
Cmcl: (210) 652-1783 / DSN: 487-1783  
Workflow: AFIMSCDet7.Workflow.AETC@us.af.mil  
Personnel as of Sept. 30, 2015: 74  
Active Duty: 29  
Reserve: 8  
Civilian: 27

Annual accomplishments for FY15:

- Awarded one F-35 MILCON hangar project at Luke AFB valued at \$11.2M and continued construction on three previous F-35 projects valued at \$42.5 million
- Responded to 3,154 fire emergency service-related events, including 1,004 emergency medical responses, 581 aircraft standbys and 19 fires
- Conducted 26 explosive ordnance disposal operational missions, cleared 523 acres and 5,280 ordnance items from ranges, resolved one suspected IED and performed

1,265 hours of Secret Service VIP support on six missions to include the 70th United Nations General Assembly and Pope Francis' visit to Washington, D.C., Philadelphia and New York

### Detachment 8

MAJCOM/DRU Supported: Air Combat Command  
 Location: Joint Base Langley-Eustis, Virginia  
 Commander: Col. Russell Hula  
 CmcI: (757) 764-2003 / DSN: 574-2003  
 Workflow: AFIMSCDet8.Workflow.ACC@us.af.mil  
 Personnel as of Sept. 30, 2015: 93  
 Active Duty: 32  
 Reserve: 16  
 Civilian: 26  
 Contractors: 19

Annual accomplishments for FY15:

- Provided CE program management for F-35 facility construction basing and bed down projects; managed 42 operations and maintenance and MILCON facility projects totaling \$122M — in the past year, the facility program went from high risk for completion to facilities completed on time
- Served as AF lead for design of the Common Mission Control Center at Beale AFB; \$69M project awarded in September with another \$12M bid options to award in FY16
- Awarded 10 energy projects valued at \$4M with estimated annual savings of 52,300M British Thermal Units and \$600,000
- Awarded a \$1.9M Energy Conservation Investment Program project with anticipated annual savings of 3,242 MBTUs and \$305,000



A pilot program at Grissom Air Reserve Base, Indiana, provided 92 emergency managers with advanced all-hazards training. (U.S. Air Force photo/Tech. Sgt. Benjamin Mota/released)

- Substantially completed construction of a 17-megawatt photovoltaic array at Nellis AFB, the largest in the AF which provides significant energy resiliency improvements with a new alternate electrical service feed to Nellis. Together with its first PV system, Nellis will have 31 MW of renewable generation
- Developed standard key performance indicators for emergency services to measure and track overall capability; KPIs correlated with national response framework mission areas of prevention, protection, mitigation, response and recovery; these metrics are key to illustrating levels of service, mission effectiveness and overall capability
- Served as lead for the Air Force Fire Emergency Services personal protective equipment initiative and completed a two-year beta test to determine the most effective PPE for first responders; all ACC FES Flights are transitioning to a standard PPE construct

### Detachment 9

MAJCOM/DRU Supported: Air Mobility Command  
 Location: Scott AFB, Illinois  
 Commander: Col. Mark McCloud  
 CmcI: (618) 229-0738 / DSN: 779-0738  
 Workflow: AFIMSC.DETAMC.WORKFLOW@us.af.mil  
 Personnel as of Sept. 30, 2015: 45  
 Active Duty: 25  
 Reserve: 4  
 Civilian: 13  
 Contractors: 3

Annual accomplishments for FY15:

- Funded 341 facilities sustainment, restoration and modernization projects valued at \$232M, of which \$169M went to sustainment projects
- Moved forward with bed down planning for KC-46A with depot facilities at Tinker AFB, formal training unit at Altus AFB, main operating base No. 1 at McConnell and MOB No. 2 at Pease ANGB; and conducted site surveys to inform the ongoing KC-46A MOB No. 3 strategic basing decision
- Continued planning for potential Presidential Airlift Recapitalization facilities requirements
- Standardized Joint Base Lewis-McChord's supported/supporting relationship; coordinated with Army Installation Management Command to recapitalize 56 military positions with subsequent reinvestment of manpower throughout the AMC CE enterprise to fill unfunded requirements
- Created emergency services dashboard to validate capabilities at all AMC installations
- Crafted a threat-based analysis briefing for CE leadership resulting in the reprioritization of emergency management chemical, biological, radiological and nuclear skill sets to meet current global threats
- Piloted AF/A4C-lauded training at Grissom Air Reserve Base, which provided 92 emergency managers with 10 days of advanced EM and CBRN all-hazards tactics, techniques, and procedures and documented more than 100 training requirements in their records

### Detachment 10

MAJCOM/DRU Supported: Air Force Global Strike Command  
 Location: Barksdale AFB, Mississippi  
 Commander: Col. Jeffrey Ullmann  
 CmcI: (318) 456-2661 / DSN: 781-2661  
 Workflow: AFIMSC.DETAFGSC.WORKFLOW@us.af.mil  
 Personnel as of Sept. 30, 2015: 29  
 Active Duty: 18  
 Civilian: 7  
 Contractors: 4

Annual accomplishments for FY15:

- Conducted the first of eight visits to all AFGSC bases with a trip to Malmstrom AFB to meet with leadership and brief AFIMSC and detachment capabilities
- Incorporated three new bases into growing Det. 10 portfolio; Dyess, Ellsworth and Kirtland AFBs officially transferred to AFGSC on Oct. 1, 2015

- Participated in CE Chiefs Council to conduct initial enlisted development panel for senior master sergeants and selects for multiple CE specialties; identified and vectored eligible members to CE's key leadership and developmental positions
- Led planning and course-of-action development efforts to bed down Integrated Nuclear Security Center of Excellence
- Conducted design review of contract to construct Helo/Tactical Response Force Complex at Malmstrom AFB
- Oversaw FE Warren AFB critical fire station deficiency; validated life-safety risk and conducted two-day site evaluation; funding authority of \$6.4M
- Conducted Missile Potential Hazard Network fly-away kit training event at FE Warren AFB; \$1.5M contract involving five bases and three MAJCOMs allows for rapid deployment to missile alert facilities and launch facilities during first hours of incident to provide initial site assessment ahead of disaster response force deployment



During the first of eight visits to Air Force Global Strike Command bases, Gen Robin Rand, AFGSC commander and Chief Master Sgt Calvin Williams were given a safety brief by Tech Sgt Christopher Daniels, a 341st Missile Maintenance Squadron team chief, at Malmstrom AFB, Montana. (U.S. Air Force photo/John Turner/released)



# ACC

JB Langley-Eustis, Va.  
 ACCCEP.PROGRAMS.DIVISION  
 @US.AF.MIL  
 757-764-3002  
 DSN 574-3002



**Col Jennifer L. Kilbourn**  
 Chief, Civil Engineer Division

## COMMAND MISSION

Air Combat Command organizes, trains, equips, and provides combat-ready forces to deliver dominant combat airpower in support of national security strategy implementation.

## CE RESPONSIBILITIES

ACC/A4C provides global force management for Air Force Civil Engineers, developing and deploying mission-ready, motivated, trained and resilient RED HORSE, Prime BEEF, EOD, Fire and Security Forces Airmen. It provides deliberate and adaptive planning, validation, prioritization and advocacy for military construction and operations and maintenance requirements and develops policy and implementation strategies supporting 1,300 aircraft, 34 wings, 19 bases and more than 70 operating locations worldwide with 84,000 active-duty and civilian personnel.

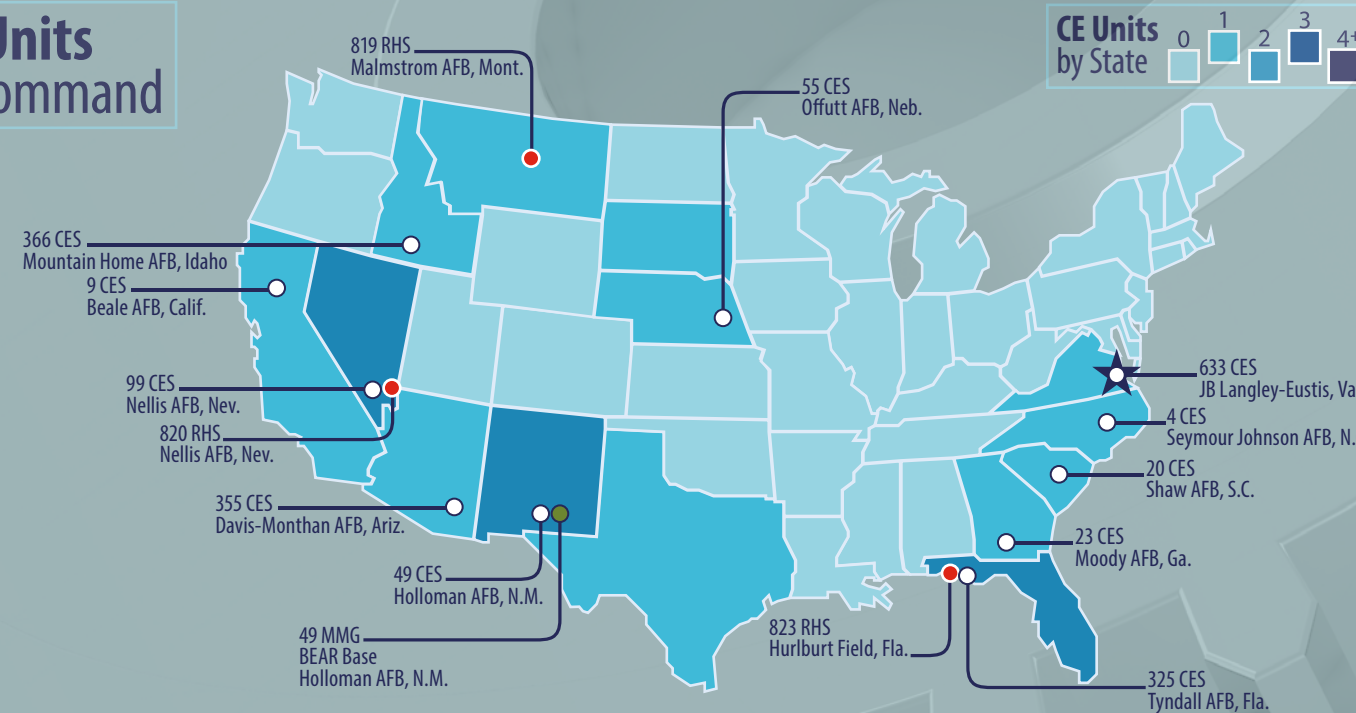
## SIGNIFICANT ACCOMPLISHMENTS

- Developed a \$597M ACC facilities and infrastructure project investment plan (474 projects)
- Developed fiscal 2017-2021 future years defense plan with 51 projects valued at more than \$933M supporting F-35, F-22, RPA, ASOS GH, CSAR, GAARV, T-38 and QF-16 beddowns, combatant commands and current mission requirements
- Provided ACC Airmen 473 new or renovated privatized homes and two new Community Centers in FY15 with an average occupancy rate of 95%
- Provided 27 high-cost foreign leases for AFCENT, ensuring safe homes for the families in Doha, Qatar, and fostering an environment for USAFCENT to build a good host nation relationship
- Conducted four command-wide infrastructure assessment team visits, identified critical projects and recommended priorities.

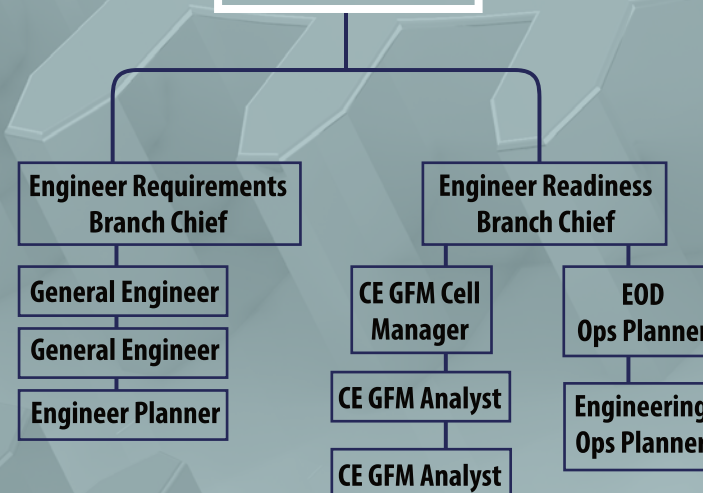


U.S. Air Force Gen. Hawk Carlisle, commander of Air Combat Command, speaks at the arrival ceremony for the F-35 Lightning II at Hill Air Force Base, Utah, Oct. 14. The ceremony marked the formal beginning of F-35 operations at Hill. ACC supports the F-35 beddown. (U.S. Air Force photo/R. Nial Bradshaw/released)

## CE Units in Command



### ACC Senior Engineer



## 2015 Statistics

Major Bases	11
Plant Replacement Value	\$27B
Buildings	59.6M sq. ft.
Airfield Pavement	40.3M sq. yd.
Housing	10,002 units (100 percent privatized)
Dorms	8,907 rooms

ACC Personnel	
Active Duty & Civilian	84,481
Reserve & Guard	47,185

CE Personnel	
Active Duty	3,976
Reserve	578
Guard	4,076
Civilian	1,462
Contractor	1,948



Matt Croteau, a firefighter from the 55th Civil Engineer Squadron at Offutt Air Force Base, Nebraska, cuts debris in Pilger, Nebraska, June 20 with a chain saw. Croteau was part of a group of volunteers from Offutt who helped with the cleanup efforts in Pilger after a tornado destroyed approximately 75 percent of the town June 16. (Courtesy photo)



# AETC

JB San Antonio - Randolph, Texas  
 AETC.A4.7N.WORKFLOW@US.AF.MIL  
 210-652-4568  
 DSN 487-4568

## COMMAND MISSION

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

## CE RESPONSIBILITIES

Responsibilities (prior to AFIMSC and AFIMSC Det 7 AETC standup): AETC provides 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

- Recognized by SAF/IE as the 2015 Department of Energy, Federal Energy Management Program Federal Energy and Water Management Award for Laughlin AFB's xeriscape landscape project. With this project, Laughlin reduced its irrigation requirements by almost 60 percent, saving approximately 40 million gallons and resulting in a 28 percent decrease in the base's total annual water consumption. After completion the expected annual water, electric and maintenance savings of \$715,000 will pay for the \$7M, two-phased initiative in 10 years
- Luke AFB's F-35 Academic Training Facility was selected as the recipient of a Merit Award for Facility Design in the 2015 USAF Design Awards Program
- Stood up the AETC Encroachment Management Team and conducted the inaugural meeting February 2015
- Validated, integrated and obtained corporate approval for AETC's \$350.8M FY15 Decentralized and FY16/17 Centralized Integrated Priority Lists
- Teamed with AF/A4C for approval to reprogram a MILCON critical airfield drainage project as two separate O&M projects and one Unspecified Minor Military Construction project

- Maintained critical Civil Engineer programs and support to AETC's 10 installations, six major tenants attaining funding and resources for infrastructure, facilities and emergency response capabilities with a dramatically decreased civil engineer staff; leveraged civilian overhires and IMA man-day support to carry Engineering and Operations functions during AFIMSC standup
- Completed eight F-35 SRM projects for \$5.3M enabling beneficial occupancy by customer
- Completed second squadron operations and academic training center MILCON projects (\$71.4M) for F-35 aircraft at Luke AFB
- Completed one KC-46 MILCON project for \$1.3M (Renovate Building 87 to relocate Ops Group and MX Training Squadron, companion to ADAL Building 193 for Squad Ops/AMU) for arrival of the first KC-46 aircraft at Altus AFB in May 2016
- Completed one KC-46 SRM project for \$102,700 (Renovate Warehouse Bldg. 394 for Supply Office) to support Boeing personnel arriving at Altus AFB in October 2015
- AETC Fire Emergency Services responded to 7,881 FES-related events, including 2,258 emergency medical responses, 1,416 aircraft in-flight emergencies and 104 fires
- Achieved the highest CE MAJCOM Mission Ready Training and advance course training execution rate of 100 percent for five consecutive years
- Conducted 60 EOD operational missions, cleared 4,153 acres and 26,758 ordnance items from ranges, resolved three suspect IEDs and performed 6,235 hours of Secret Service VIP support on 19 missions

**Facing page:** Jerry Garcia, from left, David Morin, Lt Charles Heim, Perry Benton, Eric Guess and Lt Christian Ocasio review plans for a 221-acre xeriscape project at Laughlin AFB, Texas. Base Energy Manager David Morin's leadership on projects such as this one earned him a Federal Energy Management Program Award. (U.S. Air Force photo/Master Sgt Michael McComas/released)

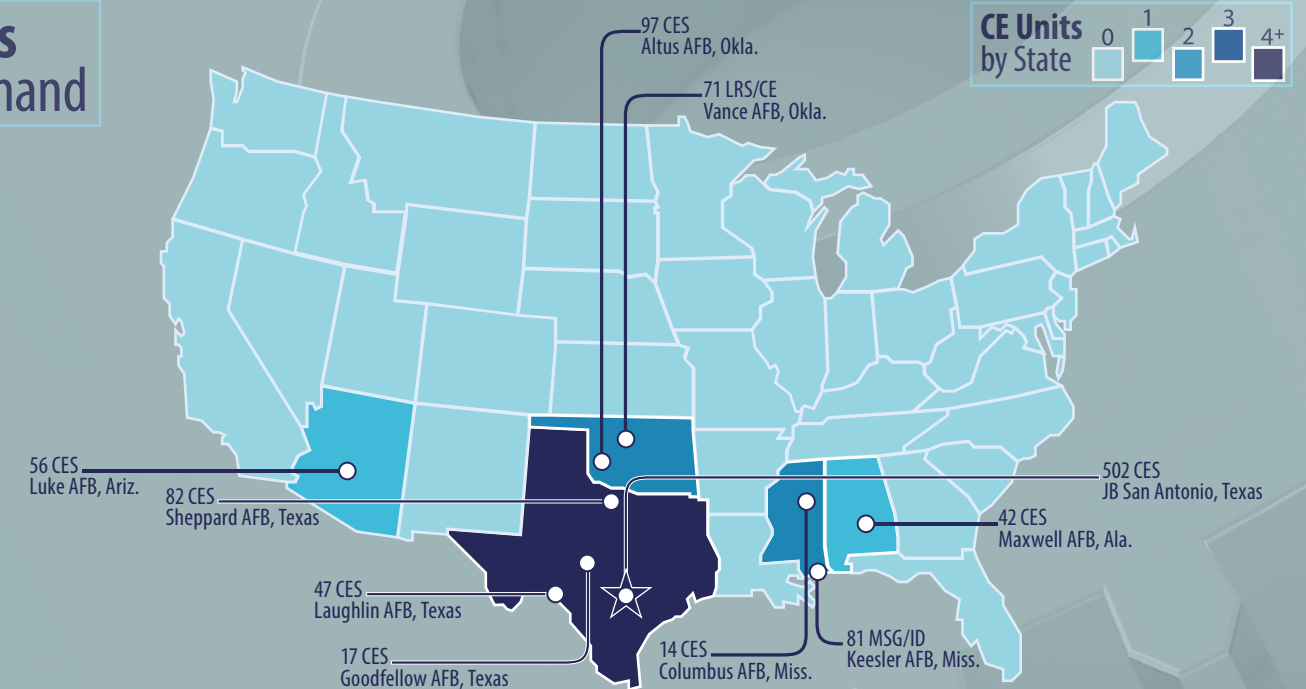


**Christopher A. Coppala**  
 Chief, Engineer Division



**CMSgt Eric J. Honeycutt**  
 Superintendent, Civil Engineer

## CE Units in Command



**Director of Logistics, Engineering and Force Protection**  
 (A4) Mr. Gilbert J. Montoya  
**Principal Deputy Director of Logistics, Engineering and Force Protection (A4D)**

**Civil Engineer (A4C)**

**Maintenance (A4M)**

**Resource Integration (A4P)**

**Security Forces (A4S)**

**Logistics Readiness (A4R)**

## 2015 Statistics

Major Bases	10
Plant Replacement Value	\$22.7B
Buildings	72M sq. ft.
Airfield Pavement	21.9M sq. yd.
Housing	5,742 units (100 percent privatized)
Dorms	15,247 rooms

**AETC Personnel**

Active Duty	28,766*
Reserve	1,150
Ind. Reservest	655
Guard	4,890*
Civilian	14,303
Contractor	10,338**

**CE Personnel**

Active Duty	581
Reserve	24
Guard	209
Civilian	2,085
Contractor	1,734

MILCON	8 projects (\$80M)
SRM	372 projects (\$350.8M)
Facilities Operation	\$197.4M

\*Does not include students  
 \*\*Does not include NAF





# AFGSC

Barksdale AFB, La.  
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 318-456-4134  
 DSN 781-4134



**Russell K. Weniger**  
 Command Civil Engineer



**CMSgt Christopher D. Simpson**  
 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; 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

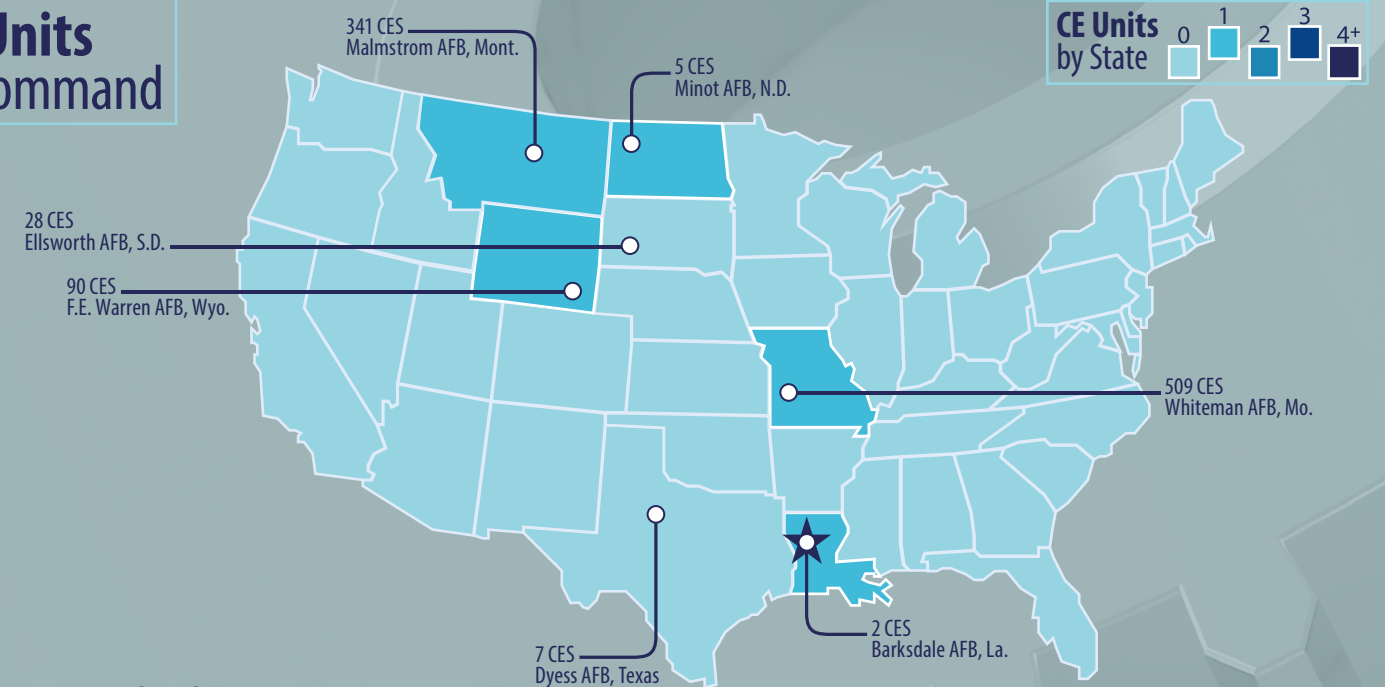
- Provided 452 CE warriors in 22 UTCs to support 15 deployed locations
- Executed 168 projects worth \$103.7M addressing aging infrastructure concerns and reinvigorating the nuclear enterprise
- Continued execution of \$1.3B corporate initiative to replace bases' 1960s-era weapon storage areas with single facilities that handle all functions under one roof; completed 60 percent of design for F.E. Warren AFB WSA; began planning charrettes for other four AFGSC bases
- Executed eight training events for nuclear weapons incident consequence management for AFGSC responders, including the second AFGSC Response Task Force training event at Whiteman AFB that enabled more than 840 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
- Because of the ever-changing face of Joint Interagency partnerships, AFGSC EOD has championed the DoD creation of three training courses. These training courses aid in developing a national performance standard for all Nuclear Render Safe assets in the U.S. Government. The first of these courses, Advanced Diagnostic Training I and Advanced Diagnostic Training II executed in June 2015. As

the name suggests, these courses focus on the interagency effort to dynamically synergize national policy, personnel, resources and technology

- Completed realignment of CE equipment UTC posturing within AFGSC, ensuring CE support to USSTRATCOM bomber strategic aircraft recovery teams and regeneration operations
- Developed/executing the PAD and PPlan for the transfer of all B-1B Bombers and LRS-B Program as well as Dyess AFB and Ellsworth AFB from ACC to AFGSC. The move consolidates the Air Force's core mission of global strike and all of the service's bombers under a unified command
- Developing \$149M in MILCON facility and infrastructure requirements for the beddown of UH-1 replacement helicopters at AFGSC's three missile wings, which include constructing a consolidated Helicopter Squad Ops/Tactical Response Force Ops and Alert facility along with an AMU and alert/maintenance hangars at these installations. Once constructed, these facilities will provide proper command and control, alert and maintenance capabilities for helicopter security operations providing coverage to remote ICBM missile alert and launch facilities

**Facing page:** Senior Airman Matthew Lesky, from left, Senior Airman Ryan Geer and Senior Airman Phillip Jackson, from the 90th Civil Engineer Squadron WFSM and P&E shops, dig a gas line to locate a leak and perform repairs in September 2015. The leaky line serviced the majority of base support functions. (U.S. Air Force photo/Tech Sgt Matthew Kieffer/released)

## CE Units in Command



## 2015 Statistics

Major Bases	6
Plant Replacement Value	\$16.7B
Buildings	30M sq. ft.
Airfield Pavement	8.6M sq. yd.
Housing	6,753 units (100 percent privatized)
Dorms	5,196 rooms

AFGSC Personnel	
Active Duty	20,439
Reserve	2,597
Guard	1,101
Civilian	2,464

CE Personnel	
Active Duty	1,273
Reserve	41
Guard	70
Civilian	610

MILCON	5 projects (\$30.1M)
SRM	204 projects (\$171M)
Facilities Operation	\$73.6M

**Director of Logistics, Installations & Mission Support**  
 (A4) Mr. Lawrence S. Kingsley

**Installations & Mission Support**  
 (DA4) Col. Harry A. Berry

**Civil Engineer Division (A4C)**

**Response Task Force Branch (A4CN)**

**Facility Requirements Branch (A4CP)**

**Nuclear Enterprise Emergency Response/Planning Branch (A4CX)**





# AFMCA

Wright-Patterson AFB, Ohio  
 HQAFMCA4.C.AFMC4C  
 WORKFLOW@US.AF.MIL  
 937-257-8013  
 DSN 787-8013



Ronald J. Onderko  
 Senior Civil Engineer

## COMMAND MISSION

Equip the Air Force for world-dominant airpower.

## CE RESPONSIBILITIES

AFMCA's engineers provide policy, guidance and support for the command's physical plants, property operations and emergency services. They deliver on-target and responsive strategic facility, infrastructure and environmental planning, programming and execution oversight to sustain and enhance AFMCA's real property assets. They provide advocacy, guidance, capital asset expertise and functional oversight of the command's real estate. AFMCA's engineers also provide resources to secure their command's operational, acquisition and sustainment mission capabilities and handle all aspects of financial management/resource allocation to support command installations.

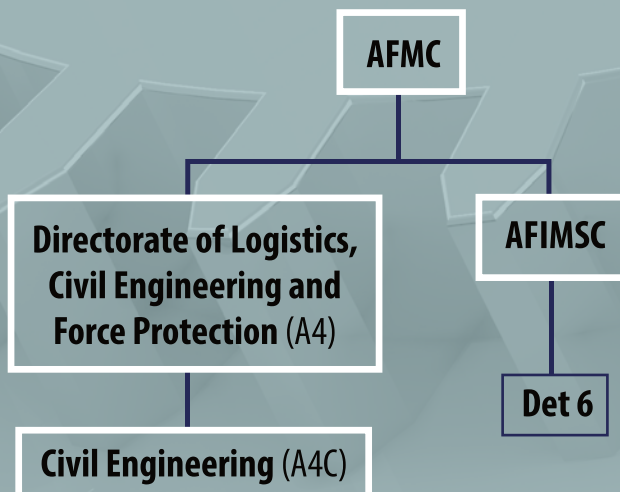
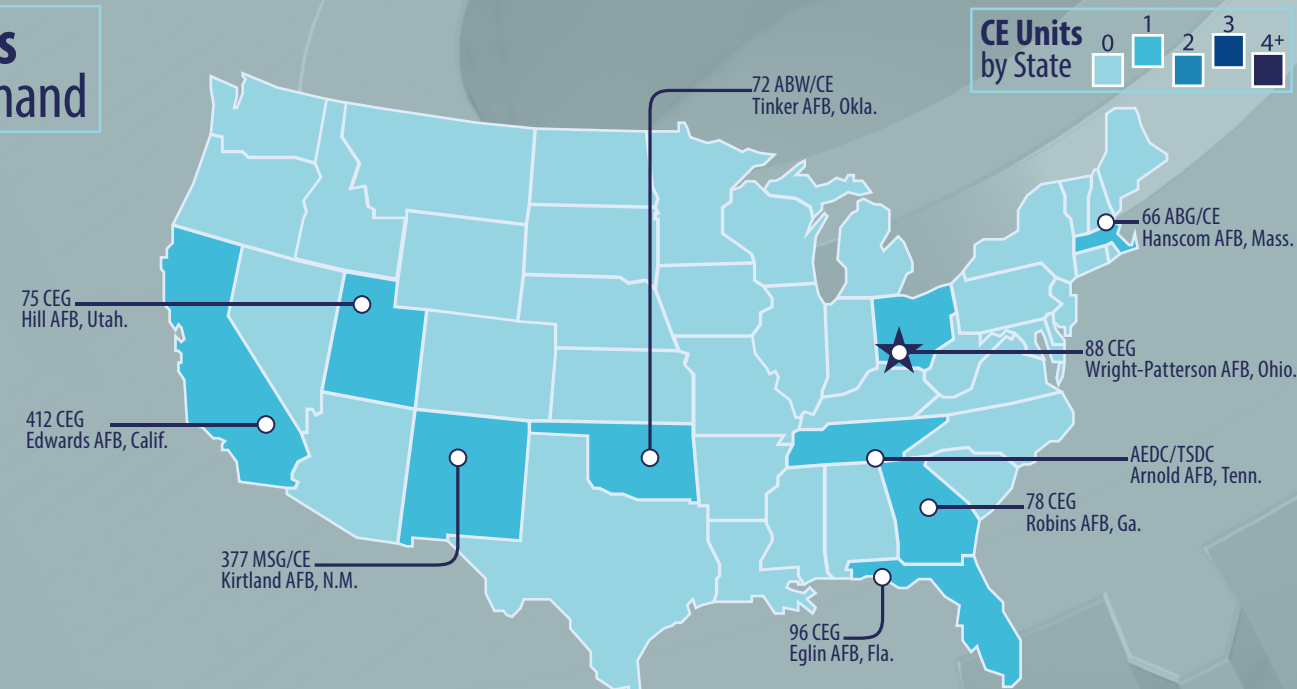
## SIGNIFICANT ACCOMPLISHMENTS

Note: A6/7 deactivated July 6, 2015, which formed HQ AFMCA/A4C. AFIMSC/Detachment 6 activated on May 26, 2015. A4C and Det 6 joint responsibilities support the AFMCA mission, "Deliver and support agile war-winning capabilities"

- Deployed 41 Officer/Fire Emergency Services/Emergency Management, 63 Other Country National Escort and 25 EOD personnel to 10 locations in support of combat operations
- Handled 501 MAJCOM-wide EOD-related incidents, providing 23,187 man-hours resulting in the safing of 12,917 ordnance items, including the destruction of 43 large missile motors in support of the START II treaty, and the clearance of 65,449 acres of ranges
- Expertly managed 14-day response and recovery efforts for the May 2015 UH-60 Blackhawk crash near Eglin AFB, successfully coordinating efforts with 35 military and civil agencies
- Supported 51 U.S. Secret Service VIP taskings, expending over 11K man-hours aiding/protecting the president, vice president and other heads of state
- Responded to 8,997 Fire Emergency Service-related emergencies, including 216 off-base responses under mutual aid agreement

- Secured \$49.9M in AFCEC centralized funding and additional \$103.1M in AFMCA straddle program funding supporting \$53.5B physical plant
- Authorized and appropriated four projects totaling \$151.5M including \$111M for KC-46 infrastructure and hangar projects at Tinker AFB, Oklahoma, \$13.5M for a dorm at Hanscom AFB, Massachusetts, and \$27M for an AFMCA consolidated mission complex
- Facilitated MAJCOM real estate transactions to ensure AFMCA mission compatibility subsequent to CET loss of Real Estate SMEs at HQ — 12 RETs coordinated with AFMCA two-letter offices with equity in the proposal
- Partnered in AFIMSC Business Process Re-engineering teams and CE Capabilities Process Re-engineering initiative
- Secured \$9.2M to convert coal-fired boilers at Wright-Patterson AFB, Ohio, to natural gas to ensure compliance with Clean Air Act
- AFMCA representation on Fuel Facility Engineering Panel establishing DoD fuel handling systems criteria for storage, distribution, maintenance and dispensing of aircraft, marine and ground fuels
- Coordinated the seamless transition of Kirtland AFB, New Mexico, from AFMCA to AFGSC
- Eglin AFB, Florida, and Hill AFB, Utah, Energy Teams were selected for 2015 Department of Energy Federal Energy Management Program Federal Energy and Water Management Awards
- Wright-Patterson AFB, Ohio, won a Facility Renovations and Additions Merit Award (second place) for the Second Floor construction project, Building 20045, and Hill AFB won a Facility Renovations and Additions Citation Award (third place) for the golf course clubhouse construction project

## CE Units in Command



## 2015 Statistics

Major Bases	9
Plant Replacement Value	\$53.5B
Buildings	131M sq. ft.
Airfield Pavement	31.6M sq. yd.
Housing	7,668 units (99 percent privatized)
Dorms	4,500 rooms

<b>AFMCA Personnel</b>	
Active Duty	17,430
Reserve	834
Civilian	60,458
Contractor	15,920

<b>CE Personnel</b>	
Active Duty	357
Reserve	4
Civilian	3,214
Contractor	2,436

MILCON	4 projects (\$151.5M)
SRM	237 projects (\$215M)
Facilities Operation	\$327M



AFMCA engineers provide support for the command's physical plants. Members of the 412th Civil Engineer Group perform a hydrant flow test as part of their preventive maintenance program at Edwards Air Force Base, California. (U.S. Air Force photo/Murray Westley/released)



# AFRC

Robins AFB, Ga.  
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 478-327-1103  
 DSN 497-1103



**Col Gary J. Schneider**  
 Associate Director of Logistics,  
 Engineering and Force Protection



**CMSgt Donald W. Meadows**  
 Chief Enlisted Manager

## COMMAND 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 74,000 Citizen Airmen worldwide. AFRC's 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 engineers are also responsible for managing programs with an annual operating budget valued at \$373M. Moreover, AFRC organizes, trains, equips and prepares nearly 5,500 civil engineers in 44 units for worldwide contingencies.

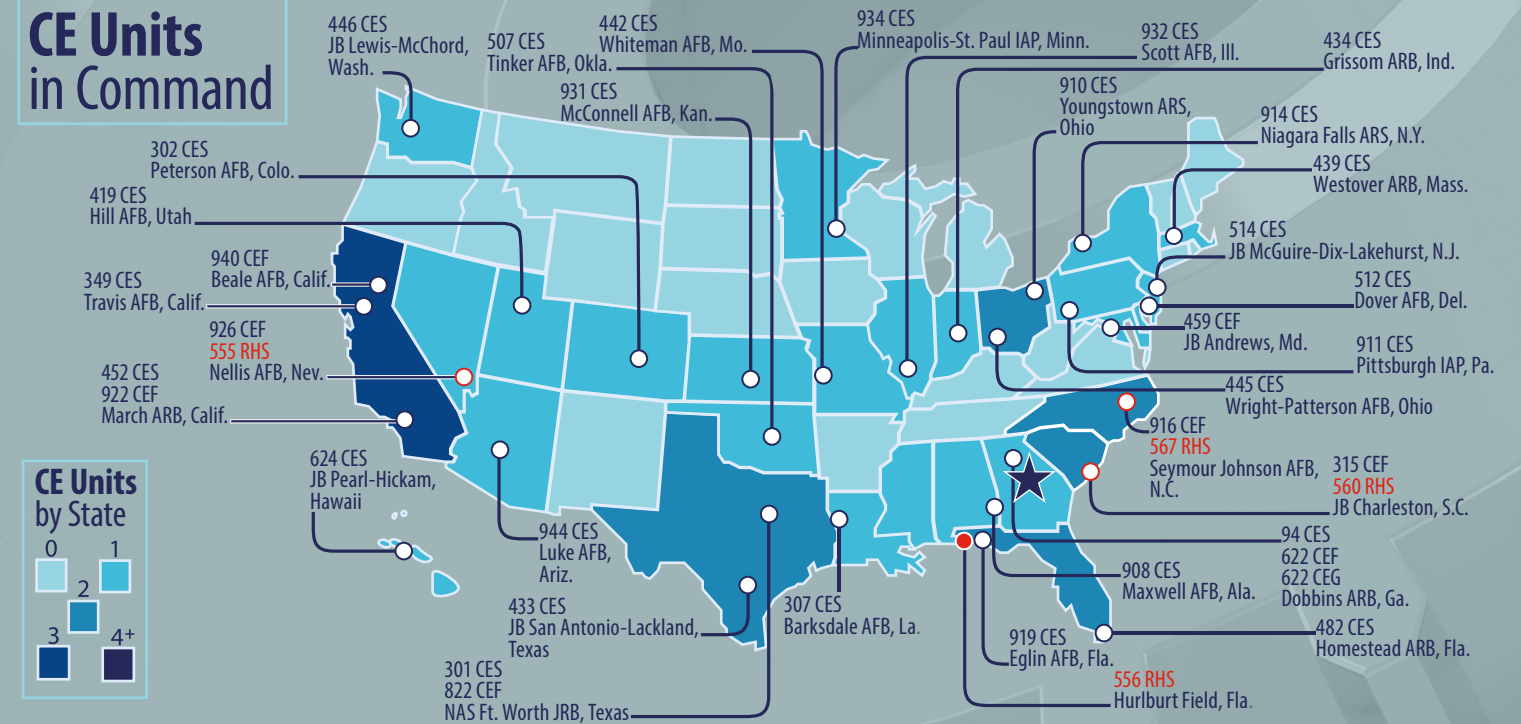
## SIGNIFICANT ACCOMPLISHMENTS

- Eight civil engineer squadrons participated in Exercise Patriot Warrior at Young Air Assault Strip, Fort McCoy, Wisconsin, June 7-26, 2015. 174 Air Force Engineers accomplished 394 total training hours. Participants included all civil engineer career fields. Formally called Global Medic, the engineers have the opportunity to establish a bare base, sustain the base during medical evacuation operations and recover the base at the end of the exercise. This is a joint exercise with services participating from all over the globe
- Deployed 219 personnel (Prime BEEF, RED HORSE) in support of contingency operations in four countries
- Base operational support FES responded to 1,418 fire emergency services calls; primarily 15 fires, 416 emergency medical services calls, 108 defense support to civil authorities calls and 879 aircraft, hazardous material, public service and wildland urban interface calls
- AFRC EOD flights responded to 113 emergencies and mission support to include defense support of civilian agencies, render safe or disposal of hazardous munitions, terrorist employment of improvised explosives devices,

- aircraft-related emergencies and very important person protective support activity
- Specialized EOD teams uniquely certified in confined space entry cleared all confined space areas along the parade route for the pope's visit to Philadelphia
- Provided 12 teams to NORTHCOM in support of the U.S. Secret Service Very Important Person Protection Support Activity to include the president, vice president, Pope Francis and other foreign dignitaries
- AFRC's contingency training location at Dobbins ARB, Georgia, the Expeditionary Combat Support – Training & Certification Center facilitated 146 civil engineer specific mission essential equipment and specialty training events. The center advanced 1,279 Total Force Airmen to unit and combatant commanders. The center is currently undergoing a \$5M upgrade improving the campus with construction of eight new facilities totaling 16,000 square feet



## CE Units in Command



**Logistics, Engineering and Force Protection Directorate (A4)**

**AFRC Command Civil Engineer & A4 Associate Deputy (A4D)**

**Civil Engineer Division (A4C)**

**Environmental & Asset Accountability Branch (A4CA)**

**Program Management Branch (A4CM)**

**Emergency Services Branch (A4CE)**

**Program Development Branch (A4CD)**

**Installation Operations Branch (A4CO)**

**Readiness & Sustainment Branch (A4CX)**

## 2015 Statistics

Major Bases 9  
 Plant Replacement Value \$6.7B  
 Buildings 13M sq. ft.  
 Airfield Pavement 15M sq. yd.

**AFRC Personnel**

Traditional Reserve	45,312
Air Reserve Technicians	9,879
Active Guard and Reserve	2,830
Individual Mobilization Augmentees	9,079
Active Duty	250
Civilian	3,792

**CE Personnel**

Traditional Reserve	3,965
Air Reserve Technician	180
Active Guard Reserve	107
Individual Mobilization Augmentees	400
Active Duty	8
Civilian	857



**Facing page:** Airmen load a fire truck onto a C-17 for Exercise Patriot Warrior in Fort McCoy, Wisconsin. (U.S. Air Force photo/released)

**Right:** Airmen set up a shelter during Exercise Patriot Warrior in Fort McCoy, Wisconsin. (U.S. Air Force photo/released)



# AFSOC

Hurlburt Field, Fla  
 AFSOC.A7E@US.AF.MIL  
 850-884-2826  
 DSN 579-2868



**Col David C. Piech**  
 Director of Installations & Mission Support

## COMMAND MISSION

Organize, train and equip Airmen to execute global special operations. We are America's Air Commandos. AFSOC provides Air Force special operations forces for worldwide deployment and assignment to regional unified commands. The command's SOF are composed of highly trained, rapidly deployable Airmen, conducting global special operations missions ranging from precision application of firepower, to infiltration, exfiltration, resupply and refueling of SOF operational elements.

## CE RESPONSIBILITIES

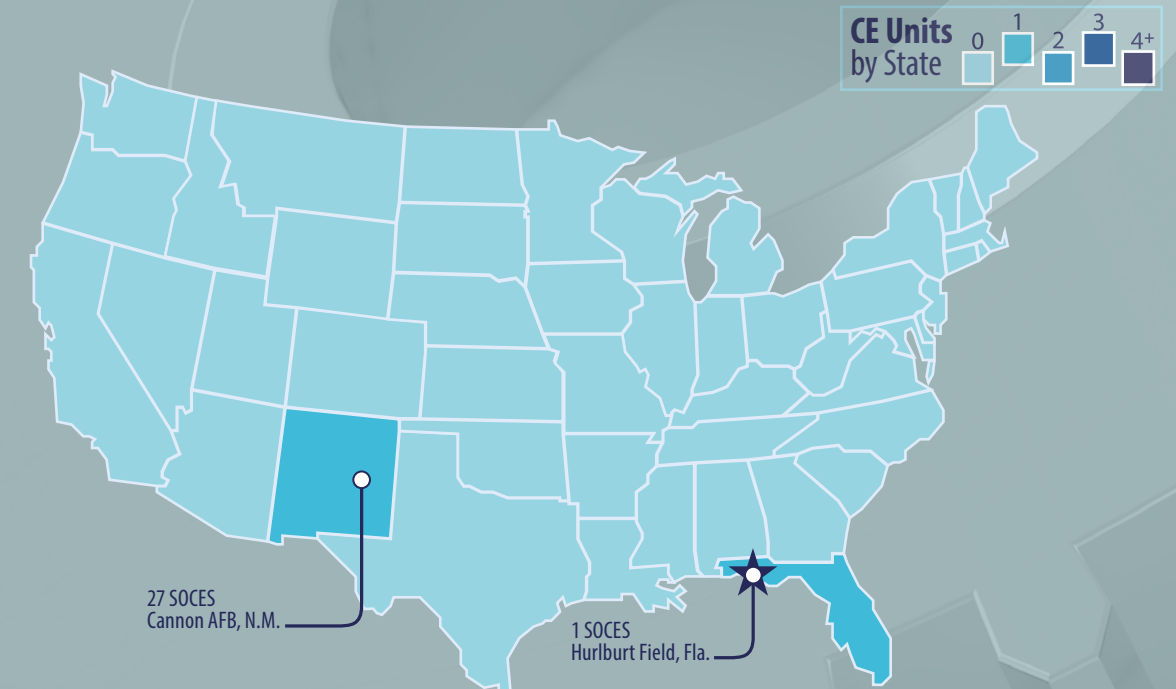
Plans, programs, resources and manages civil engineer processes and resources enabling the air component of U.S. Special Operations Command to execute its mission. Executes \$80M in annual appropriations, supports more than 20,000 special operations forces at 35 locations worldwide and advises the AFSOC commander on base development and sustainment, 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 215 engineers to 12 locations in Southwest Asia, Africa, Central America and South America in direct support of USSOCOM and Air Force missions
- Responded to UH-60 crash by coordinating requirements for 35 federal/state/local agencies assuring the dignified recovery of 11 fallen military personnel
- Deployed civil engineer J-Teams supporting over 400 Inherent Resolve and Eager Lion missions
- Supported three AFPAK Hands Airmen in Afghanistan, fostering long-term 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
- 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 worldwide
- Executed \$52.7M for 130 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 (This does not include \$11.3M for SOF, MFP-11, funded minor construction)
- Completed seven MILCON projects at \$54.2M providing new facilities and infrastructure supporting Air Force Commandos conducting special operations across the globe
- Awarded two MILCON projects worth \$12M at Cannon AFB, New Mexico, to continue the AFSOC mission beddown
- Developed \$250.9M beddown plan for AFSOC mission in the Pacific theater
- Executed \$15.8M for 11 Air Force and SOF O&M projects supporting IOC of CV-22's at Yokota AB, Japan, in FY17
- Validated \$350M in MILCON projects supporting the relocation of 352 SOW to Spangdahlem AB, Germany
- Continued execution of 30 MILCON projects valued at \$571M to provide combat ready forces
- Restructured staff and facilitated the standup of AFIMSC Det 3. HQAFSOC/A7 drops from 35 personnel in FY15 to 15 positions in FY16

## CE Units in Command



### Director of Installations & Mission Support (A7)

Engineering (A7N)

Operations & Readiness (A7O)

Security Forces (A7S)



## 2015 Statistics

Major Bases	2
Plant Replacement Value	\$8B
Buildings	8.1M sq. ft.
Airfield Pavement	2.8M sq. yd.
Housing	1,202 units (100 percent privatized)
Dorms	1,791 rooms

<b>AFSOC Personnel</b>	
Active Duty	14,065
Reserve	1,470
Guard	1,760
Civilian	1,776
Contractor	1,310

<b>CE Personnel</b>	
Active Duty	519
Reserve	111
Guard	148
Civilian	226
Contractor	75

MILCON	11 projects (\$190.2M)
SRM	130 projects (\$52.7M)*
Facilities Operation	\$12.6M

\*Excludes \$11.3M for SOF (MFP-11) funded projects

Civil engineers supported reconfiguring and expanding Melrose Air Force Range, New Mexico. The range is used for training exercises for Special Operations Forces air/ground operations. (U.S. Air Force photo/Senior Airman Eboni Reece/released)





# AFSPC

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 719-554-7900  
 DSN: 692-7900



**Col Anthony Ramage**  
 Commander, Det. 1  
 Air Force Installation and  
 Mission Support Center



**Michelle A. Linn**  
 Chief, Civil Engineer Division  
 and Command Civil Engineer

## COMMAND MISSION

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

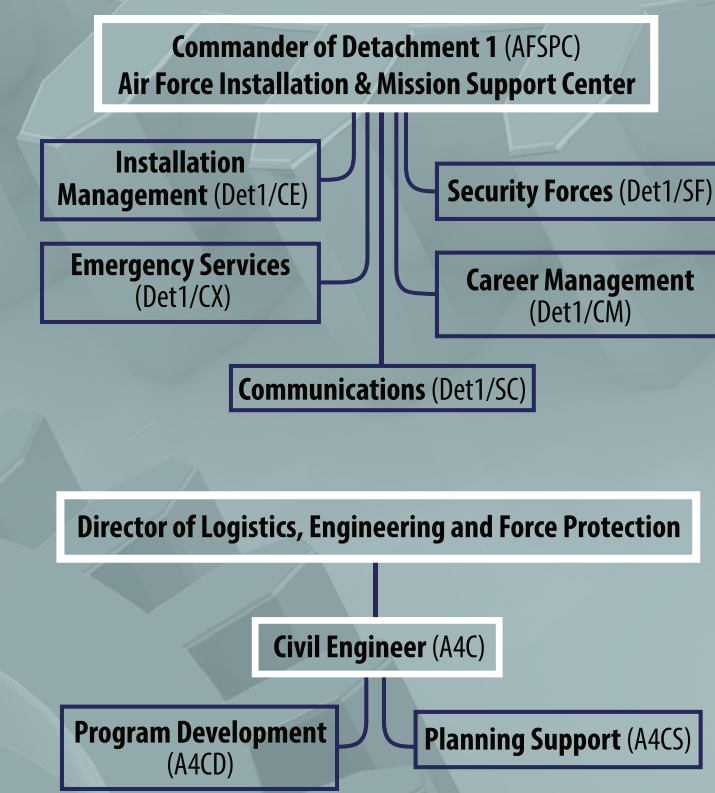
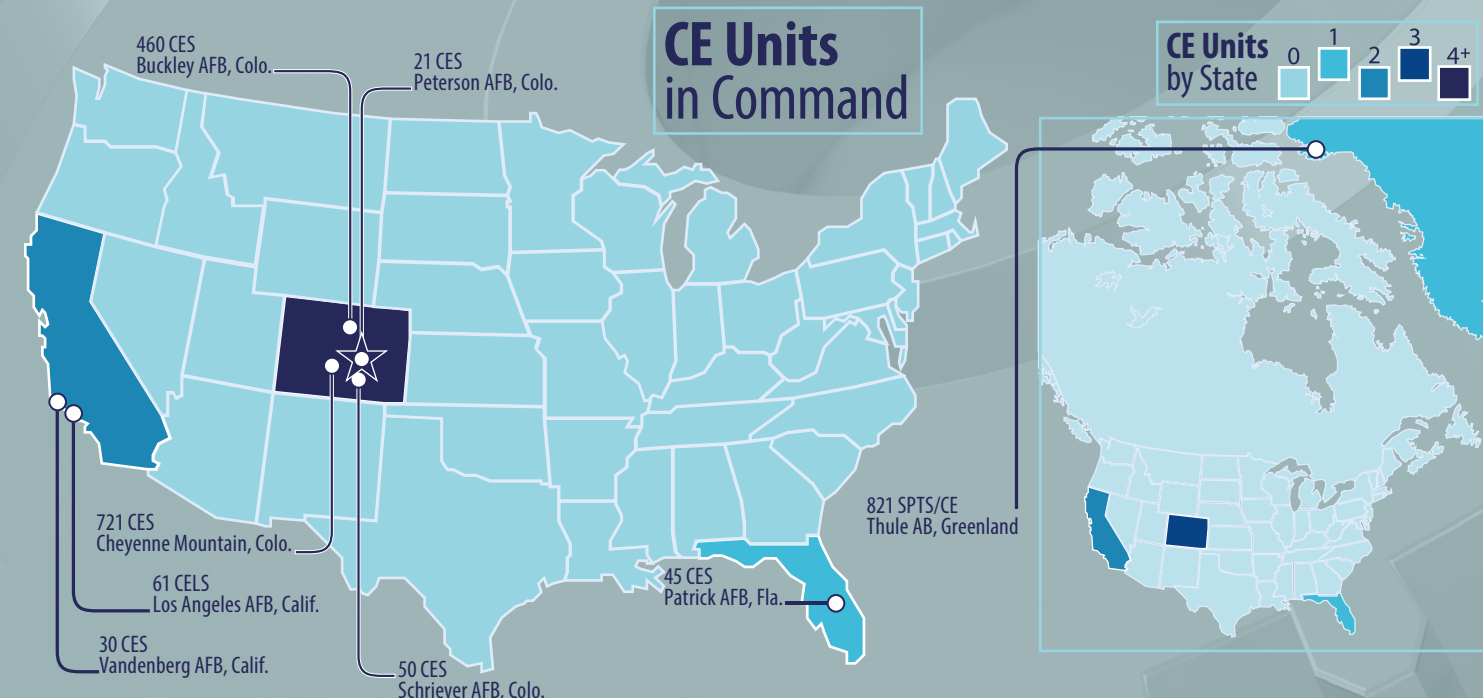
## CE RESPONSIBILITIES

Validates, prioritizes and advocates for direct mission-related requirements. Provides deliberate and adaptive planning support for Civil Engineer functions to AFSPC missions worldwide. Interface with Air Staff A4C, Civil Engineer Primary Support Unit and Air Force Installation and Mission Support Center on behalf of AFSPC missions worldwide.

## SIGNIFICANT ACCOMPLISHMENTS

- Completed \$13.8M Phase 1 renovation consolidating 30 Space Wing launch functions as part of the Joint Space Operations Center consolidation initiative
- Awarded the \$61M construction renovation supporting Phase 2 of the JSpOC consolidation
- Commenced construction of three Cyber Mission Forces beddown projects and awarded construction of an additional three. These six projects support the stand-up of 10 cyber/intel squadrons and a group at Joint Base San Antonio, Texas; Scott AFB, Illinois; and Fort Gordon, Georgia
- Reduced overall AFSPC consumption of energy 45.9 percent and water 55 percent from established baselines

- Initiated investment grade audits to identify energy conservation measures for 40+ facilities on Peterson AFB, Colorado, as part of first Air Force multi-facility energy savings performance contract
- Partnered with SAF/IE to install electric fueling station infrastructure at Los Angeles AFB, California. This project enabled LA AFB, to become the first DoD installation to convert their entire vehicle fleet to either electric or hybrid vehicles
- Completed construction of five ring nets and began construction of a catchment basin as part of a \$7.5M project to significantly improve the ability of Cheyenne Mountain AFS, Colorado, to withstand future landslides
- Completed the first phase of a \$24.8M Thule AB, Greenland, runway project by replacing the base course, repaving, restriping and replacing runway edge lighting for approximately half of the existing 10,000 foot asphalt runway
- Awarded a \$25.8M project to replace the 13th Street bridge at Vandenberg AFB; replaces structurally deficient bridge along sole transport route between north Vandenberg AFB and the south Vandenberg AFB launch complexes in California



## 2015 Statistics

Major Bases	7
Launch Ranges	2
Stations	9
Plant Replacement Value	\$16B
Buildings	29.6M sq. ft.
Airfield Pavement	4.1M sq. yd.
Housing	3,504 units (100 percent privatized)
Dorms	2,685 rooms

<b>AFSPC Personnel</b>	
Active Duty	12,964
Reserve/Guard	16,857
Civilians	8,171
Contractors	8,779

<b>CE Personnel</b>	
Active Duty	1,021
Reserve/Guard	312
Civilians	825
Contractors	1,445

MILCON	2 projects (\$69.9M)
SRM	230 projects (\$203.8M)*
Facilities Operation	\$213.5M

**Facing page:** Contractors work to upgrade the Thule Air Base, Greenland, runway July 11, 2015. The first half of the project -- the first 5,000 feet of the 10,000 foot runway -- began in early June 2015. The second half of the upgrade will begin in 2016. (U.S. Air Force photo/Tech Sgt Jared Marquis/released)



# AMC

Scott AFB, Ill.  
 AMCA4-42@US.AF.MIL  
 618-229-1908  
 DSN 779-1908



Col Randy L. Boswell  
 Chief, Operations Division

## 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

Prioritize, validate and advocate for direct-mission engineer requirements to enable AFTRANS to operate across the Range of Military Operations and at all levels of war. Provide MAF integrated planning synchronization, geospatial asset visibility and integration, and mobility air forces engineer expertise. Manage force presentation (posture), force generation (deployment), and deliberate and crisis action planning as the command's CE, EOD, and Mission Support Group HQs force provider. Identify and synchronize geospatial requirements across the Mobility Air Force mission spectrum, including en route and expeditionary airfields to meet command and control requirements.

## SIGNIFICANT ACCOMPLISHMENTS

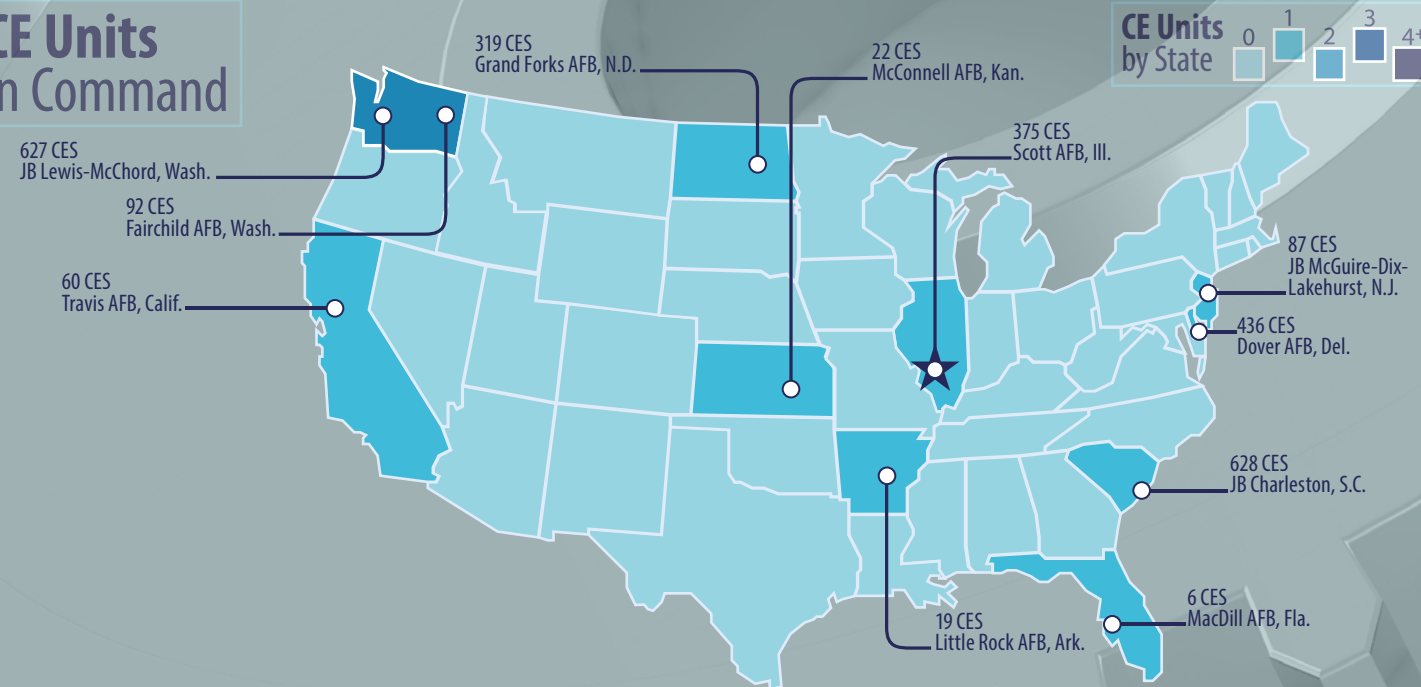
- Executed 341 Facilities Sustainment, Restoration and Modernization projects valued at \$232M; \$169M (73 percent) went to Sustainment projects
- Continued beddown planning for KC-46A Pegasus with Depot facilities at Tinker AFB, Oklahoma, Formal Training Unit at Altus AFB, Oklahoma, Main Operating Base #1 at McConnell AFB, Kansas, and MOB#2 at Pease ANGB, New Hampshire
- Conducted Site Surveys to inform the KC-46A MOB#3 strategic basing decision
- Continued planning for potential Presidential Airlift Recapitalization facilities requirements.
- AFIMSC Det 9 Fire Emergency Services Team selected as Greater St. Louis Public Safety Federal Team of the Year
- AMC represented AF Fire & Emergency Services in providing FDNY with memorabilia from the Transit Center at Manas in Bishkek, Kyrgyzstan (informally named Ganci Air Base)
- Standardized Joint Base Lewis-McChord, Washington, supported/supporting relationship; coordinated with U.S.

Army Installation Management Command to recapitalize 56 military positions with subsequent reinvestment of manpower throughout the AMC CE enterprise to fill unfunded requirements

- Created Emergency Services Dashboard to validate Emergency Services capability at all AMC installations
- Crafted a threat-based analysis briefing for CE leadership resulting in the reprioritization of Emergency Management CBRN skill sets to meet current global threats
- Piloted AF/A4C-lauded training at Grissom Air Reserve Base, Indiana; provided 92 AMC Emergency Managers with 10 days of advanced EM and CBRN all-hazards tactics, techniques and procedures and documented over 100 training requirements in their records
- Deployed 497 personnel and 30.2 short tons of equipment supporting global requirements
- JB Charleston, South Carolina, earned re-accreditation through the Commission on Fire Accreditation International
- McConnell AFB, Kansas, and Little Rock AFB, Arkansas, became accredited by the Commission on Fire Accreditation International

**Facing page:** Senior Airman Matthew Davis, 19th Civil Engineer Squadron water and fuel system journeyman, and Staff Sgt Scott Triplett, 19th Civil Engineer Squadron water and fuel system craftsman, secure a saddle tee on a waterline during upgrades May 7, 2015, at Little Rock Air Force Base, Arkansas. The saddle tee allows the Airmen to tap into a live waterline without having to shut down water access on base. (U.S. Air Force photo/Senior Airman Scott Poe/released)

## CE Units in Command



## Operations Division (AMC/A40)

## Engineer Operations Branch (AMC/A40C)

## Engineering

## Expeditionary Engineering

## Geospatial Integration and Analysis

## 2015 Statistics

Major Bases	10
Plant Replacement Value	\$31.3B
Buildings	62.5M sq. ft.
Airfield Pavement	24.3M sq. yd.
Housing	9,672 units (100 percent privatized)
Dorms	9,269 rooms*

### AMC Personnel

Active Duty	40,664
Civilian	8,007

### CE Personnel

Active Duty	2,170
Civilian	1,470
Contractor	1,513

### AFIMSC/Det 9 Personnel

Active Duty	25
Civilian	13
Contractor	3

MILCON	5 projects (\$33.9M)
SRM	341 projects (\$232M)
TWCF	\$49M
Facilities Operation	\$162M

\*Includes Air Force, Army, and Navy dorms at JB McGuire-Dix-Lakehurst, New Jersey, and JB Charleston, North Carolina, and Air Force dorms at JB Lewis-McChord, Washington, and Pope AFB, North Carolina.





# ANG

JB Andrews Naval Facility, Md.  
 NGBA7.WORKFLOW@ANG.AF.MIL  
 240-612-8060  
 DSN 612-8060



**Col Michael E. McDonald**  
 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

- Executed over \$350M of critical SRM projects to repair and maintain ANG installations
- Reduced facility energy intensity 24 percent over baseline year
- Awarded for construction of six Military Construction projects supporting KC-46 conversion, RPA operations and C-130 maintenance
- Awarded over \$27M in environmental restoration contracts at ANG installations

## 2015 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	7 projects (\$94.6M)
SRM	32 projects (\$236.6M)
Facilities Operation	\$2.9M

**Director of Installations & Mission Support (NGB/A7)**  
**Deputy Director of Installations & Mission Support**  
**Associate Director of Installations & Mission Support (NGB/A7)**

**Chief Enlisted Advisor**

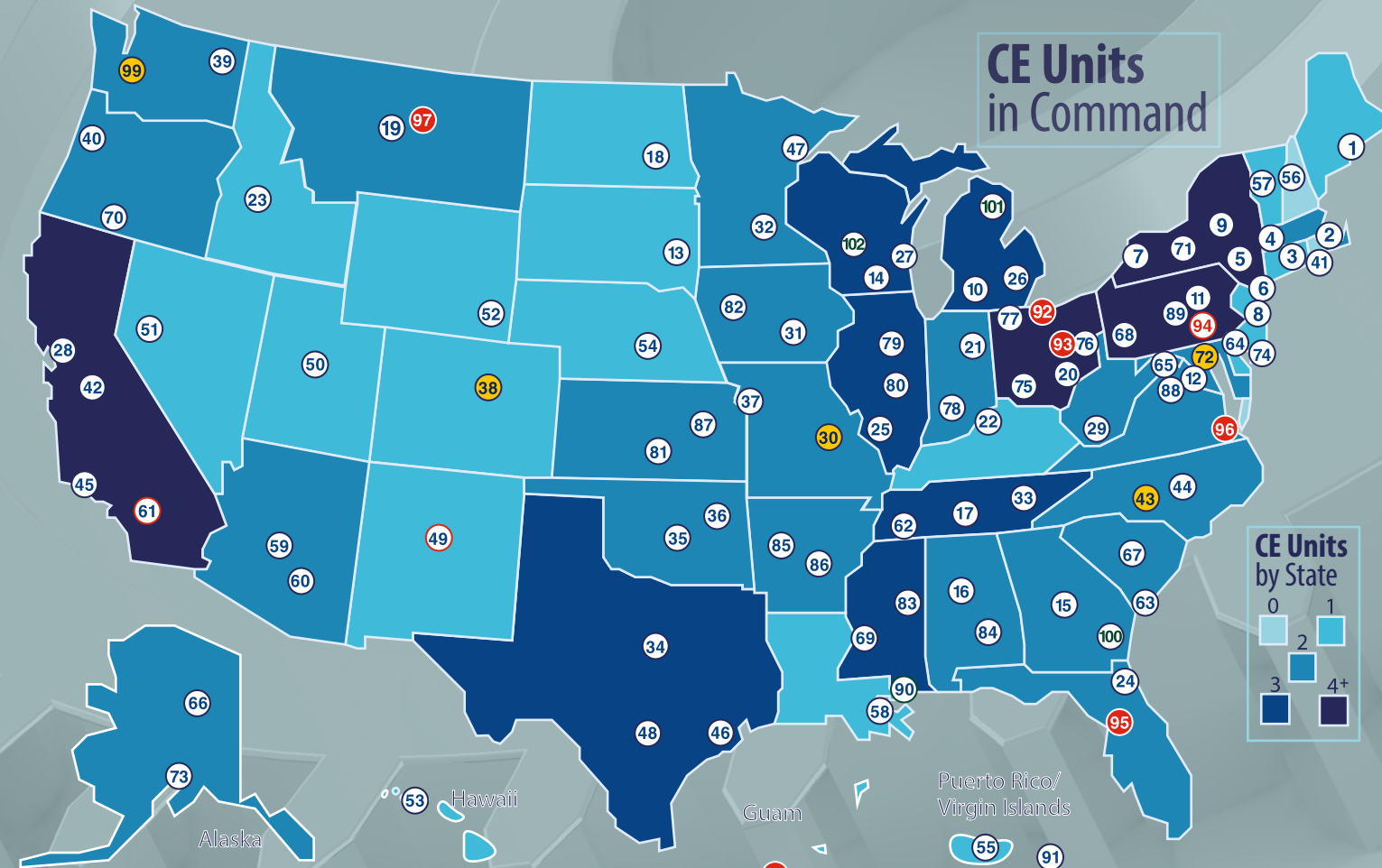
**Readiness (A7X)**

**Operations (A7O)**

**Resources (A7R)**

**Security Forces (A7S)**

**Asset Management (A7A)**



- |  |   |  |  |   |  |
|--|---|--|--|---|--|
| 1 101 CES<br>Bangor ANGB, Maine                          | 19 120 CES<br>Great Falls IAP, Mont.            | 38 140 CES<br>Buckley AFB, Colo.               | 56 157 CES<br>Pease AGS Portsmouth IAP, N.H. | 73 176 CES<br>JB Elmendorf-Richardson, Alaska | 92 200 RHS<br>Port Clinton, Ohio             |
| 2 102 CES<br>Otis ANGB, Mass.                            | 20 121 CES<br>Columbus IAP, Ohio                | 39 141 CES<br>Fairchild AFB, Wash.             | 57 158 CES<br>Burlington IAP, Vt.            | 74 177 CES<br>Atlantic City IAP, N.J.         | 93 200 RHS Det 1<br>Mansfield, Ohio          |
| 3 103 CES<br>Bradley IAP, Conn.                          | 21 122 CES<br>Ft. Wayne IAP, Ind.               | 40 142 CES<br>Portland IAP, Ore.               | 58 159 CES<br>NAS New Orleans, La.           | 75 178 CES<br>Springfield-Beckley MAP, Ohio   | 94 201 RHS<br>Fort Indiantown Gap, Pa.       |
| 4 104 CES<br>Barnes ANGB, Mass.                          | 22 123 CES<br>Louisville IAP, Ky.               | 41 143 CES<br>Quonset State AP, R.I.           | 59 161 CES<br>Phoenix Sky Harbor IAP, Ariz.  | 76 179 CES<br>Mansfield Lahm RAP, Ohio        | 94 201 RHS<br>Fort Indiantown Gap, Pa.       |
| 5 105 CES<br>Stewart IAP, N.Y.                           | 23 124 CES<br>Gowen Field, Idaho                | 42 144 CES<br>Fresno IAP, Calif.               | 60 162 CES<br>Tucson IAP, Ariz.              | 77 180 CES<br>Toledo Express AP, Ohio         | 11 201 RHS Det 1<br>Horsham AGS, Pa.         |
| 6 106 CES<br>Gabreski AP, N.Y.                           | 24 125 CES<br>Jacksonville IAP, Fla.            | 43 145 CES<br>Charlotte IAP, N.C.              | 61 163 CES<br>March ARB, Calif.              | 78 181 CES<br>Terre Haute, Ind.               | 95 202 RHS<br>Camp Blanding, Fla.            |
| 7 107 CES<br>Niagara Falls, N.Y.                         | 25 126 CES<br>Scott AFB, Ill.                   | 44 146 CES<br>Stanley County, N.C.             | 61 163 RTS<br>March ARB, Calif.              | 79 182 CES<br>Peoria IAP, Ill.                | 96 203 RHS<br>Virginia Beach, Va.            |
| 8 108 CES<br>JB McGuire-Dix-Lakehurst, N.J.              | 26 127 CES<br>Selfridge ANGB, Mich.             | 45 147 CES<br>Channel Islands AGS, Calif.      | 62 164 CES<br>Memphis IAP, Tenn.             | 80 183 CES<br>Capitol AP, Ill.                | 49 210 RHS<br>Kirtland AFB, N.M.             |
| 9 109 CES<br>Schenectady County AP, N.Y.                 | 27 128 CES<br>General Mitchell IAP, Wis.        | 46 148 CES<br>Ellington Field JRB, Texas       | 63 165 CES<br>Savannah/Hilton Head IAP, Ga.  | 81 184 CES<br>McConnell AFB, Kan.             | 97 219 RHS<br>Malmstrom AFB, Mont.           |
| 10 110 CES<br>W.K. Kellogg AP, Mich.                     | 28 129 CES<br>Moffett Federal Air Field, Calif. | 47 149 CES<br>Duluth IAP, Minn.                | 64 166 CES<br>New Castle County ANGB, Del.   | 82 185 CES<br>Sioux City AP, Iowa             | 98 254 RHS<br>Andersen AFB, Guam             |
| 11 111 MSG<br>Horsham AGS, Pa.                           | 29 130 CES<br>Charleston ANGB, W.V.             | 48 149 CES<br>JB San Antonio - Lackland, Texas | 65 167 CES<br>Martinsburg, W.V.              | 83 186 CES<br>Key Field, Miss.                | 30 231 CEF S-Team<br>Jefferson Barracks, Mo. |
| 12 113 CES<br>JB Andrews Naval Facility, Washington, Md. | 30 131 CES<br>Lambert St. Louis IAP, Mo.        | 49 150 CES<br>Kirtland AFB, N.M.               | 66 168 MSG<br>Eielson AFB, Alaska            | 84 187 CES<br>Montgomery RAP, Ala.            | 72 235 CEF S-Team<br>Martin State AP, Md.    |
| 13 114 CES<br>Joe Foss Field, S.D.                       | 31 132 CES<br>Des Moines IAP, Iowa              | 50 151 CES<br>Salt Lake City IAP, Utah         | 67 169 CES<br>McEntire Joint NGB, S.C.       | 85 188 CES<br>Fort Smith RAP, Ark.            | 38 240 CEF S-Team<br>Buckley AFB, Colo.      |
| 14 115 CES<br>Truax Field, Wis.                          | 32 133 CES<br>Minneapolis-St. Paul IAP, Minn.   | 51 152 CES<br>Reno IAP, Nev.                   | 68 171 CES<br>Pittsburgh IAP, Pa.            | 86 189 CES<br>Little Rock AFB, Ark.           | 43 245 CEF S-Team<br>Charlotte IAP, N.C.     |
| 15 116 CES<br>Robins AFB, Ga.                            | 33 134 CES<br>McGhee/Tyson AP, Tenn.            | 52 153 CES<br>Cheyenne MAP, Wyo.               | 69 172 CES<br>Jackson IAP, Miss.             | 87 190 CES<br>Forbes AFB, Kan.                | 99 248 CEF S-Team<br>Camp Murray, Wash.      |
| 16 117 CES<br>Birmingham IAP, Ala.                       | 34 136 CES<br>Ft. Worth, Texas                  | 53 154 CES<br>JB Pearl Harbor-Hickam, Hawaii   | 70 173 CES<br>Klamath Falls AP, Ore.         | 88 192 MSG<br>JB Langley-Eustis, Va.          | 100 CRTC GA<br>Garden City, Ga.              |
| 17 118 CES<br>Nashville, Tenn.                           | 35 137 CES<br>Oklahoma City, Okla.              | 54 155 CES<br>Lincoln, Neb.                    | 71 174 CES<br>Syracuse Hancock IAP, N.Y.     | 89 193 SOCES<br>Harrisburg IAP, Pa.           | 101 CRTC MI<br>Alpena, Mich.                 |
| 18 119 CES<br>Hector Field, N.D.                         | 36 138 CES<br>Tulsa, Okla.                      | 55 156 CES<br>Luis Muñiz Marin IAP, P.R.       | 72 175 CES<br>Martin State AP, Md.           | 90 209 CES<br>Gulftport, Miss.                | 90 CRTC MS<br>Gulftport, Miss.               |
| 18 119 RTS<br>Hector Field, N.D.                         | 37 139 CES<br>St. Joseph, Mo.                   |  |  | 91 285 CES<br>Christianhead, Virgin Islands   | 102 CRTC WI<br>Camp Douglas, Wis.            |



# PACAF

JB Pearl Harbor-Hickam, Hawaii  
 PACAF.A4C.ENGINEERING  
 @US.AF.MIL  
 808-449-2884  
 DSN 315-449-2884



Col Allen L. Thibeaux  
 Chief, Civil Engineer Division



CMSgt Timothy W. Rickard Jr.  
 Chief Enlisted Manager

## COMMAND MISSION

PACAF delivers rapid and precise air, space and cyberspace capabilities to protect and defend the United States, its territories and our allies and partners; provides integrated air and missile warning and defense; promotes interoperability throughout the AOR; 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 regional security.

## CE RESPONSIBILITIES

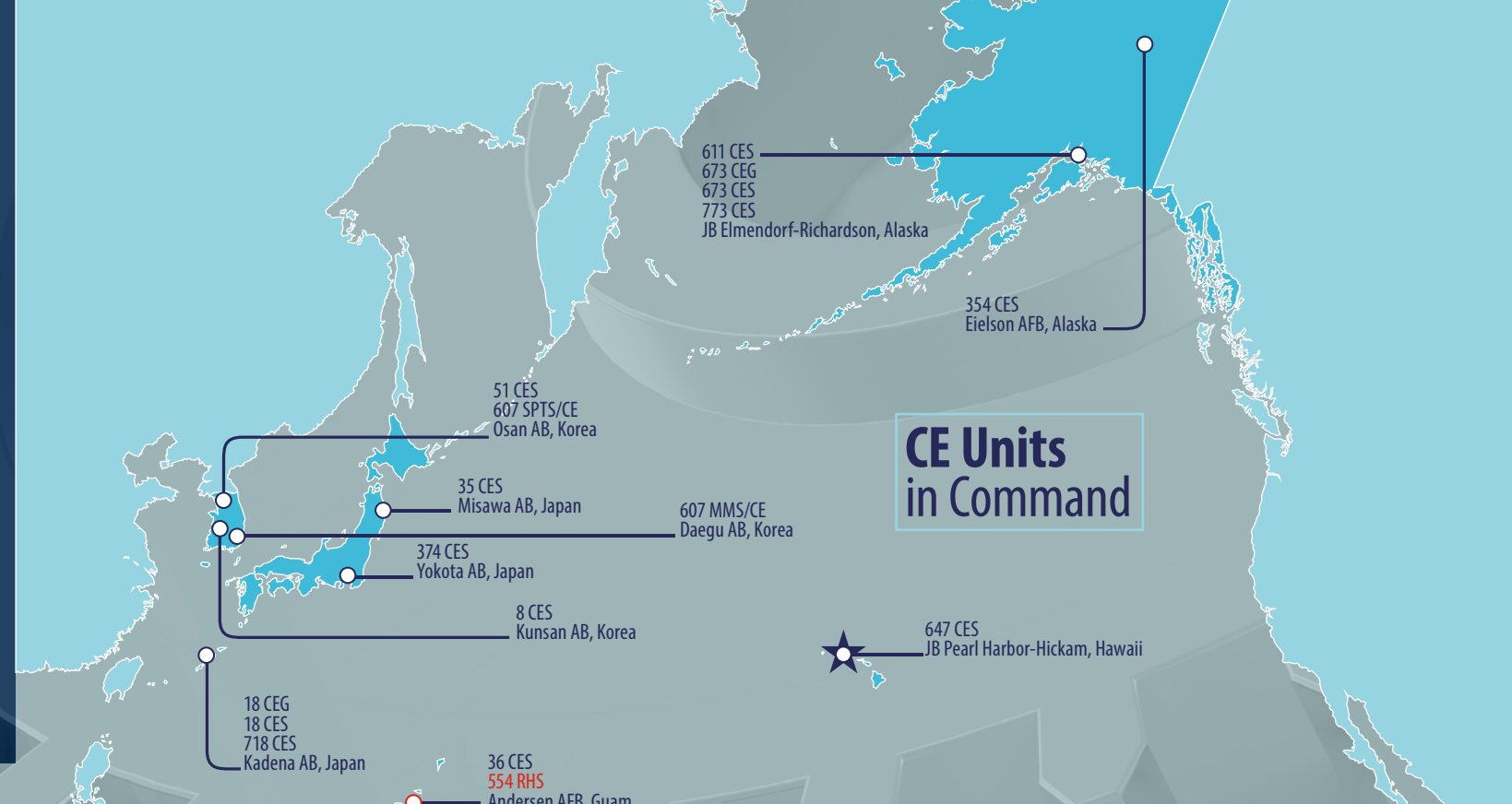
PACAF/A4C plans and directs engineer forces to shape the theater, build partnerships, deter our enemies and prepare to win the fight in an AOR that includes 60 percent of the world's population, five of the 10 largest economies, five of seven U.S. treaty allies, seven of 11 of the world's largest democracies, seven of 10 of the world's largest armies, and four of eight of the world's largest missile arsenals. PACAF faces 80% of all natural disasters in this AOR. This region is challenged with terrorism, organized crime, drug and human trafficking, territorial disputes, rising near-peer powers, unprecedented A2AD capability, the tyranny of distance and a long history of cultural and historic strife. PACAF/A4C provides adaptive planning for two OPLANs and 10 CONPLANs and injects civil engineering expertise to drive leading edge resiliency initiatives for distributed operations and passive defense.

## SIGNIFICANT ACCOMPLISHMENTS

- To enhance the Air Force's readiness and war-fighting capability, PACAF is fielding \$245M prepositioned stocks of rapid runway repair materials and support vehicles for airfield resiliency to counter A2/AD. Rapid Airfield Damage Repair systems provide unprecedented airfield pavement repair capability enabling a more resilient installation combat platform
- PACAF/A4C teamed with the Command Fuels Engineer and Air Force Petroleum Agency for implementation/refining of Water and Fuel Expedient Repair System launch. We provided AFCEC lead with theater-specific knowledge and recommendations for hardware rollout, UTC creation, CONOPs and TTPs for nine major installations
- PACAF validated, prioritized and advocated the FY18 PACAF MILCON program. Organized 47 existing mission projects worth \$1.1B targeting vital mission impacts to drive priorities throughout. In addition, PACAF prioritized 27 projects worth \$1.7B to implement the Rebalance to

the Pacific strategic initiative to include divert airfield locations, ammo storage modernization, fuel resiliency and contingency storage. In addition, PACAF/A4C handled 612 FY 16/17 SRM projects worth \$788M as the program shifted to AFIMSC. PACAF engineers continued to strongly support PACOM strategy of Theater Security Cooperation in the Pacific through the execution of 21 engagements with 18 countries to include subject matter expert exchanges, an inaugural comprehensive Airfield Damage Repair Exercise with the Republic of Korea Air Force engineers, first Partner Nation attendance at Silver Flag at the Pacific Regional Training Center and partnership with Philippine Air Force engineers to build three new schools

- Led a 14-Airmen/Palau apprentice civic action team in Palau, completing \$400K in community construction projects and technical assists
- Nine engineers from the 554th RED HORSE supported the US Navy-led multilateral humanitarian assistance and disaster relief preparedness mission, Pacific Partnership 2015. These PACAF engineers worked alongside U.S. Navy Seabees as well as engineers from nine partner nations to build and renovate schools and hospitals, while increasing joint and combined engineer interoperability
- In support of the bilateral Enhanced Cooperative Support Agreement with the Republic of the Philippines, conducted joint PACOM engineering assessment site surveys of Armed Forces of the Philippines installations to identify potential facility and infrastructure improvements of mutual benefit to both nations. A4C postured \$100M+ in potential Enhanced Defense Cooperation Agreement and Exercise Related Construction investments to support the resiliency of the Philippines, provide for joint exercises, and support regional humanitarian or disaster relief



## 2015 Statistics

Major Bases	9*
Plant Replacement Value	\$44.3B
Buildings	80.7M sq. ft.
Airfield Pavement	19.7M sq. yd.
Housing	19,524 units**
Dorms	15,769 rooms***

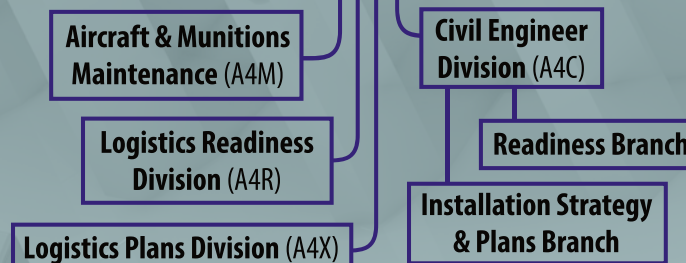
<b>PACAF Personnel</b>	
Active Duty	28,680
Reserve	1,022
Guard	4,664
Civilian	11,499
Contractor	3,317

<b>CE Personnel</b>	
Active Duty	2,733
Reserve	243
Guard	282
Civilian	2,587
Contractor	1,847

MILCON	5 projects (\$112M)
SRM	142 projects (\$99M)
Facilities Operation	\$197M

\*Includes joint bases  
 \*\*Includes Hickam and excludes Andersen AFB  
 \*\*\*Excludes Hickam and Andersen AFB

### Director of Logistics, Engineering & Force Protection



Airmen from the U.S. and Republic of Korea Air Forces work with a large rapid runway repair fiberglass mat during a combined airfield damage repair drill. A foreign-object debris mat is anchored over a repaired hole once a crater is refilled and smoothed. (U.S. Air Force photo/Maj Rueben Choi/released)



# USAFE-AFAFRICA

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**Col Aaron K. Benson**  
 USAFE-AFAFRICA/A4C  
 Chief, Civil Engineer Division

## COMMAND MISSION

Executes the Air Force, USEUCOM, and USAFRICOM missions with forward-based airpower and infrastructure to conduct and enable theater and global operations.

## CE RESPONSIBILITIES

HQ USAFE-AFAFRICA/A4C provides civil engineer program expertise, oversight, resource allocation, policy and guidance to execute USAFE-AFAFRICA missions. A4C engineers manage 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 assistance, sustainable infrastructure, emergency services and building partnership capabilities throughout the European and African theaters of operation.

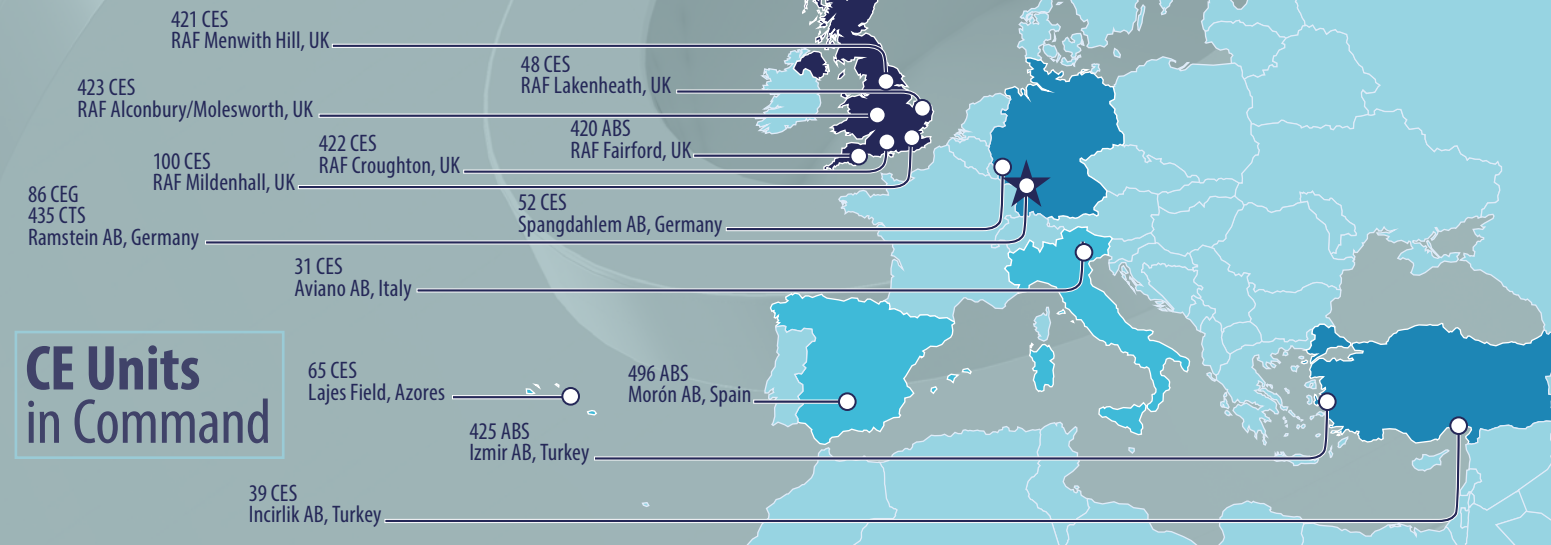
## SIGNIFICANT ACCOMPLISHMENTS

- Obligated \$28M in FY15 for 28 O&M projects in support of the European Reassurance Initiative. Assisted in planning 18 ERI MILCOM projects approved for FY15 supporting seven countries totaling \$133M
- In coordination with eight host nations, advocated for the inclusion of 103 USAFE airfield projects (\$422M) in new NATO Capability Packages; ensured Alliance funding steered toward correction of USAFE infrastructure short-falls
- Maintained GeoReach image mosaics of current commercial satellite imagery, totaling 23,000 sq km, enhanced the geospatial visualization of 263 airfields of interest via web map services. Supported 15 named operations and various missions of interest for EUCOM and AFRICOM
- Deployed 370 Combat Trained USAFE Engineers to three COCOMS across three continents

- Supported Theater Security Packages in three different countries in an eight-month period
- Accomplished expeditionary site surveys for 44 airfields in 23 countries throughout Europe and Africa; identified contingency operating locations and evaluated their capabilities to support future air operations
- Developed and planned a \$50M new airfield construction project in Niger supporting AFRICOM intelligence, surveillance and reconnaissance and crisis response operations
- Managed \$1.74M in aircraft sunshades, range control facility and life support area construction projects supporting Joint Exercises, and \$355K in support of humanitarian civic assistance projects
- Participated in Exercise Diamond Dragon, a bilateral response exercise with the United Kingdom
- Replaced 761 flightline fire extinguishers with environmentally safe units to comply with EU directives
- Planned and programmed the reactivation of EOD training for USAFE Silver Flag

**Facing page:** Steven Kelly, 48th Civil Engineer Squadron fire chief, addresses personnel during exercise Diamond Dragon at Royal Air Force Honnington, England, in June 2015. Diamond Dragon was a three-day, joint forces response exercise that readied members of the U.K. Ministry of Defense, emergency response agencies and the U.S. Air Force for incidents that require help from both nations. (U.S. Air Force photo/Senior Airman Nigel Sandridge/released)

## CE Units in Command



**Director of Logistics, Engineering & Force Protection (A4)**  
 Brig Gen Roy-Alan Agustin

**Chief Enlisted Manager**

**Civil Engineer (A4C)**

**Contracting (A4K)**

**Logistics Readiness (A4R)**

**Maintenance (A4M)**

**Resources (A4P)**

**Security Forces (A4S)**

## 2015 Statistics

Major Bases:	6
Plant replacement value	\$37.2B
Buildings	51.5M sq. ft.
Airfield pavement	12.4M sq. yd.
Housing*	5,336 (0 percent privatized units)
Dorms	6,154 rooms

<b>USAFE Personnel</b>	
Active Duty	22,434
Guard/Reserve	649
Civilian	9,598

<b>CE Personnel</b>	
Military	1,621
Civilian (U.S.)	114
Civilian (Local)	2,237
Contractor	986





# AFCEC

**JB San Antonio-Lackland, Texas**  
**AFCEC.WORKFLOW@US.AF.MIL**  
**210-395-8000**  
**DSN 969-8000**

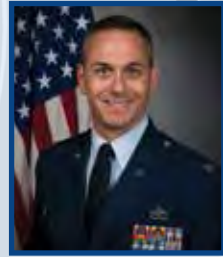
## MISSION

The Air Force Civil Engineer Center, headquartered at Joint Base San Antonio-Lackland, Texas, is a primary subordinate unit of the Air Force Installation and Mission Support Center. AFCEC is responsible for providing responsive, flexible full-spectrum installation engineering services.

AFCEC missions include facility investment planning, design and construction, operations support, real property management, readiness, energy support, environmental compliance and restoration, and audit assertions, acquisition and program management. The unit conducts its operations at 75 locations worldwide.



**Mr. Robert Brown**  
Director



**Col Charles Kuhl**  
Deputy Director - San Antonio



**Col David Higdon**  
Deputy Director - Tyndall

## Energy

- The directorate realized an 8.86-to-1 return on investment in the \$16.8M Resource Efficiency Manager Program
- To date, 68 systems are privatized with contracts valued at \$3.9B, (cost avoidance of over \$520M) validated 32 percent reduction in natural gas totaling \$19M and 25 percent reduction in water consumption
- Initiated the new acquisitions for Energy Savings Performance Contracts and Utility Energy Service Contracts with total investment valued at \$540M
- In response to an OSD mandate, the Air Force established the Advanced Meter Reading System that was issued a full Authority to Operate 30 April
- AMRS PMO, awarded three contracts for meter and AMRS installation. The three systems will be installed at Tinker AFB, Oklahoma; Eielson AFB, Alaska; and Nellis/Creech AFB, Nevada. The total amount was \$2.1M

## Environmental

- The Environmental Directorate centrally managed 3,324 projects at over 80 bases to meet compliance and cleanup requirements, funded 2,681 environmental quality projects totaling more than \$268M and 426 restoration projects totaling more than \$386M and implemented centralized procurements, combining 188 individual contract actions at 43 bases into 25 environmental support contracts (savings of \$30M over five years)

## Facilities Engineering

- The Facilities Directorate achieved a 100-percent award rate for SRM and dorm projects, awarding \$560.1M across

534 projects; awarded 17 out of 23 President's Budget MILCON projects for \$632M, and an additional four projects in other PB programs totaling \$60.5M ; managed the design and construction of 27 MILCON projects for the KC-46A beddown at Main Operating Base #1, the Formal Training Unit and the Depot valued at \$439M; and managed the design and construction of 27 MILCON projects for the F-35 beddown for the Pilot Training Center, Test and Evaluation base, Operating Base #1, and Operating Base #2 valued at \$375M

- The standards and evaluation branch developed and fielded Smart Start, a project scope definition assessment and risk analysis tool, now being used by CE project managers AF-wide to spot issues in advance of problems and enable pre-award solutions instead of post-award negative cost, schedule and performance impacts
- The directorate also completed and posted the Whole Building Design Guide Facility Criteria documents for Legal Facilities, Indoor Small Arms Firing Range and Level 1 Confinement Facilities; Entry Control Facilities/Access Control Points Dynamic Prototypes, AF Minimum BIM Requirements, AF BIM PxP Template, the Fighter Hangar/AMU Design Guide; and insured all FY15 AF buildings successfully incorporated sustainability into the project delivery process, achieving goals of: 80 percent of Air Force buildings met or exceeded all Federal, OSD, and AF sustainability and LEED certification requirements; and an average 98.2 percent overall federal compliance score for all Air Force buildings
- The directorate also managed the annual USAF Design Awards program recognizing eight outstanding design projects, focusing on facilities that are not only visually appealing, but also resource and energy conscious

## Installations

- The CI directorate has accomplished major objectives this past year in Real Property Management, Real Estate Development, actions for Base Realignment and Closure, and Housing Privatization. The Real Estate Management Division has put forth an intensive effort supporting Financial Improvement Audit Readiness awareness and compliance of Air Force Installations. Additionally, the CIT Division, designed in MAJCOM representative teams, has improved direct coordination with Installations, MAJCOMs, A4C and SAF/IEI entities working accountability and transactional issues improving Air Force efforts to become FIAR compliant
- The AFCEC Real Estate Development Division team closed an Enhanced Use Lease agreement at Grand Forks Air Force Base, North Dakota, in February 2015. The unmanned aerial system business park is a model public-public-private partnership. The deal leased 216 acres of non-excess, underutilized base property to Grand Forks County to develop a business park, Grand Sky, for UAS testing, training and research. During a ceremony 15 Oct, the first tenants of Grand Sky Business Park broke ground at the site. Grand Sky illustrates the power of government and commercial collaboration, leveraging existing assets to provide third-party funding to the installation
- The division closed a 10-megawatt photovoltaic solar array at Luke AFB, Arizona, in July, which leases land to Arizona Public Service generating an alternative revenue source for the base for the next 30 years
- AFCEC/CIB has continued its steadfast efforts receiving public and regulatory recognition for protecting public health in drinking water supplies from prior use of fire-fighting foam at 300 potential release sites at 30 former Air Force installations. AFCEC/CIM Division has been the tip of the spear for the effective management of the massive housing privatization portfolio for the Air Force

## Operations

- The Operations Directorate provided direct support to the Air Force enterprise through operations and maintenance boiler inspections, power coordination, pavement testing, linear segmentation, technology transfer criteria development and fire suppression hangar occupant training projects totaling more than \$9M
- Evaluated pavements at 24 airfields including direct support to the U.S. Government's inter-agency Ebola response
- Performed built infrastructure assessments at 10 installations
- Completed 658 CEMIRT work requests totaling more than \$13M in direct costs with specialized support to electrical distribution and power generation systems, aircraft arresting systems, industrial control systems and heating, ventilation and air conditioning systems during peacetime and emergency response operations
- Provided hands on or web-based asset management training to several thousand Air Force CE Personnel while writing 15 Air Force Instructions, one Air Force Handbook, two Air Force Facility Criteria documents and seven Unified

Facilities Criteria documents with joint engineering counterparts

- Performed built infrastructure assessments at 10 installations

## Planning and Integration

- The Planning and Integration Directorate postured \$950M design and construction services, and \$500M environmental services acquisition vehicles, competed the first AFCEC program objective memorandum submission consisting of 31 enterprise portfolio disconnects and initiatives totaling \$1.8B across five-year defense plan, formulated FY16/17 AFCAMP build melding over 10,000 projects into a \$1.4B central O&M program. It laid the foundation to consolidate 12 disparate installation geospatial information and services systems into a single, standardized and effective platform; guided the transfer of critical Air Force Encroachment Management program from SAF and accelerated 22 key installation complex encroachment management action plans and 10 noise studies
- The directorate also launched the AFCEC Encroachment Management Team and hosted inaugural AFEM training symposium; established the Enterprise Planning Team, postured basing analysis support capability, revitalized planning assistance teams and advanced facility space management, as well as supported deployment of CE capabilities, including Requirements Identification and Execution Support Planning
- Additionally, the directorate rapidly developed a bridge strategy to transition \$700M in annual sustainment requirements from MAJCOM responsibility into the AFCEC managed centralized program to support the standup and transition of AFIMSC

## Readiness

- In 2015, the Readiness Directorate achieved several notable successes in support of our engineers in the field.
- Initiated CE's first capability-based assessment for aerial port damage repair; and JLIST shelf-life testing that saved \$60M over the FYDP
- Awarded a \$5B/5-year AFCAP IV contract to directly support contingency requirements
- Overhauled Fire Emergency Services' air show response posture leading DoD, NATO and FAA to adopt major safety improvements
- Centralized AF tasking and funding for joint EOD VIP protection missions, procured 496 new rapid airfield damage repair vehicles for PACAF and AFCENT; and over 400 equipment UTCs from eight MAJCOMS for increased warfighter support and greater efficiency

## 2015 Statistics

AFCEC Personnel	
Active Duty	116
Reserve	21
Civilian	1,238



# AFDW

**JB Andrews-Naval Air Facility**  
Washington, Md.

**A4: USAF.JBANAFW.AFDW-STAFF.MBX.**

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**A4C: USAF.JBANAFW.AFDW-STAFF.MBX.**

**AFDW-A7C-WORKFLOW@MAIL.MIL**

**240-612-6210**

**DSN 612-6210**



**Col Keith Welch**  
Director, Logistics, Engineering  
and Force Protection

## COMMAND MISSION

The Air Force District of Washington, located on JB Andrews, Maryland, 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. It also prepares and conducts, when directed, homeland operations within the NCR. AFDW executes specified Military Department statutory responsibilities for administration and support of HQ USAF 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 provide assigned forces to the Joint Task Force-National Capital Region. They conduct deliberate planning and prepare for consequence management in the NCR, supporting senior leader protective services and continuity of government. AFDW engineers provide airfield and base infrastructure supporting reception and staging of forces at Joint Base Andrews, aerospace control and defense over the NCR, and distinguished visitor aerial transport. AFDW engineers proudly maintain the high-visibility Air Force Memorial site and enable no-fail support to Air Force One.

## SIGNIFICANT ACCOMPLISHMENTS

- JB Andrews No. 1 in DOD! Supported 4K DVs/226 POTUS tm's 26 K personnel — garnered DOD CINC-IE Award
- Captured \$140M to fund vital infrastructure and facility projects
- Awarded \$34.3M project to replace degraded Airfield Storm Drainage System
- Led MILCON planning and programming efforts in support of the \$331M Presidential Aircraft Recapitalization program
- Provided SME support to AFFOR Operations Center and JTF-NCR Joint Operations Center during 2015 State of the Union Address and 2015 Papal Visit
- Executed 190 VIP Protective Support Activity missions (48 percent of AF total of 393 missions), 18K man hours supporting US Secret Service and Department of State missions ensuring the safety and protection of the president and other senior leaders
- Oversaw test base for AF's NextGen IT solution...first to tackle data migration and training for AF-wide launch; set standard for CE transformation across 166 bases

- Hosted AFIMSC(P); enabled AFIMSC personnel and operations transition to JB San Antonio and standup of AFIMSC Det 5 at JBA
- Completed the JBA Installation Development Plan, guiding future development over the next 20 years
- Revitalized Utilities Privatization program for 11 CES, enhancing program oversight and management
- Partnered with HQ AMC/A7 to conduct a multi-discipline Infrastructure Assessment at JBA
- Hosted the AF-level Expeditionary & Emergency Services Program Group Conference
- Deployed 60 engineers to 11 locations—provided agile combat support to OEF/OND/HOA
- Conducted Black Flag exercise (March 16-27, 2015), enhancing capabilities for 27 CBRN responders
- Conducted successful SAV to posture and prepare 11 CES for the 11 WG Unit Effectiveness Inspection

**Facing page:** Construction continues on the new Ambulatory Care Center and Dental Clinic at JB Andrews. The new \$219M campus will have a state of the art operating room and will consolidate all medical support departments from 12 buildings into one new 345,000-square foot facility. Additionally, it will integrate into the National Capital Region healthcare network, providing world-class medical services to the nation's wounded warriors and the area's service members, retirees and their families. (U.S. Air Force photo/Patricia Gray/released)



11 CES  
JB Andrews, Md.

## CE Units in Command

## 2015 Statistics

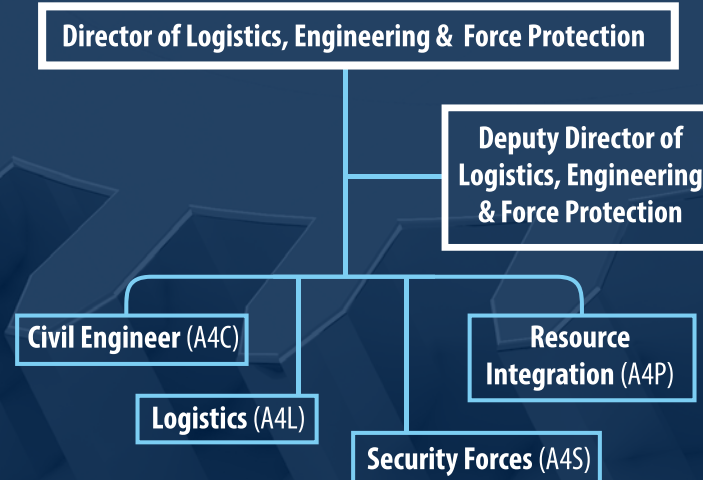
Major Bases	1
Plant Replacement Value	\$5.6B
Buildings	6.7M sq. ft.
Airfield Pavement	2.5M sq. yd.
Housing	1,143 units (100 percent privatized)
Dorms	634 rooms

<b>AFDW Personnel</b>	
Active Duty	2,398
Reserve	90
Civilian	975

<b>CE Personnel</b>	
Active Duty	297
Reserve	7
Civilian	137

MILCON	3 projects (\$240M)
SRM	44 projects (\$106.7M)
Facilities Operation	\$28.8M

Note: AFDW executes worldwide accountability and support to 26,000+ Airmen not assigned to a MAJCOM or an Air Force installation





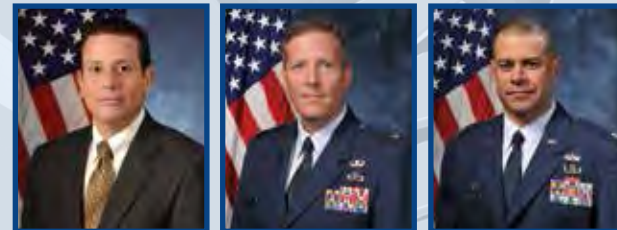
# USAFA

Colorado Springs, Colo.

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Mr. Carlos Cruz-Gonzalez  
Director of Installations

Col John A. Christ  
Permanent Professor  
and Head, 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

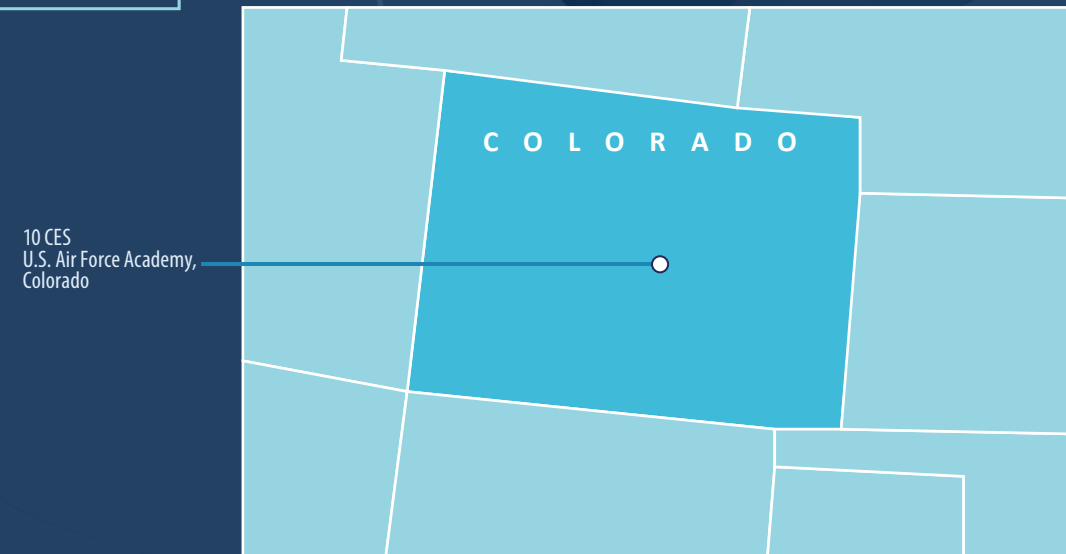
USAFA Civil Engineers develop future leaders through instruction, mentoring and through the provision of world-class infrastructure and facilities. The Department of Civil and Environmental Engineering has responsibility for two accredited majors: Civil Engineering and Environmental Engineering (through the Class of 2016). Graduates receive bachelor of science degrees in civil or environmental engineering and go on to meet mission needs as rated officers 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.

- Superb execution of emergency response program; protected 19K acres, 4K cadets, interstate, rail and 700K visitors; inspected 258 facilities/10M sq ft; and delivered outstanding fire education critical fire safety message programs for 12 annual events on and off base to 25K
- Demonstrated flawless response/care at 200+ highway accidents; performed dozens of extrications
- Winner of General Thomas D. White Air Force Sustainability Program MAJCOM Award
- Partnered with Forest City-Hunt housing managers to raise the occupancy in family housing to over 96 percent to aid project financial viability
- Established the Tri-Lakes National Fire Cohesive Strategy Pilot Project, an interagency, regional approach to forest restoration and wildland fuels management to assess wildfire hazard and develop and implement fuel hazard reduction across the Wildland Urban Interface zone from the Academy to Palmer Lake. The project is critical to effectively minimize the risk of widespread, catastrophic wildfire
- Conducted tours of storm water damaged areas on the Santa Fe Trail/Monument Creek crossing (near the Waste Water Treatment Plant) to FEMA, Colorado Division of Homeland Security & Emergency Management, and El Paso County personnel in support of El Paso County's disaster declaration for the May 2015 storms. Efforts supported gaining FEMA funding to effect repairs to damaged areas
- Successfully awarded and transitioned an \$86M CE Services Contract (BOS contract) between incumbent contractor (CHAS) and new contractor (Aleut) at start of FY15.
- Organized/facilitated the first High-Hazard dam, Kettle Creek Dry Dam, Emergency Action Plan Seminar to the state
- Created and implemented a no-cost incident management Common Operating Picture because of the termination of the Defense Connect Online program

## SIGNIFICANT ACCOMPLISHMENTS

- Graduated 43 cadets in the Class of 2015: 38 civil engineering, two environmental engineering and three dual civil/environmental engineering majors; 16 entered the Civil Engineer career field, and 27 entered other Air Force career fields
- Completed 22nd offering of the Civil Engineering 351 course at the Field Engineering and Readiness Lab with the help of 79 active-duty, Guard and Reserve mentors and 12 senior cadets. Seventy students (54 USAFA, 10 AFROTC, five Naval Academy and one Military Academy) constructed two Navajo homes for the Southwest Indian Foundation and participated in numerous activities preparing them for the challenges of future civil engineering courses
- DFCE Faculty published four papers for journals/periodicals, eight conference posters, six conference presentations, and authored/co-authored one book chapter

## CE Units in Command



- Completed construction on \$6.5M repairs to the two Northgate bridges, a \$10M Ambulatory Surgery Center and Mental Health Clinic (in Building 513) renovation. Winding down the construction on the \$40M, 43,000SF, FY11 Center for Character and Leadership MILCON/Donor project; the new USAFA NHLD iconic structure.

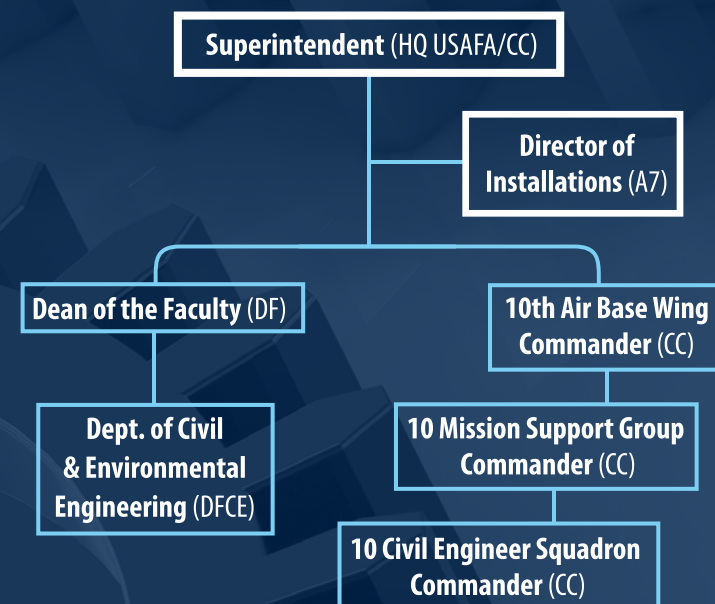
## 2015 Statistics

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

<b>HQ USAFA/A7</b>	
Active Duty	0
Civilian	3
Contractor	0
<b>HQ USAFA/DFCE</b>	
Active Duty	20
Reserve	4
Civilian	6
<b>10 CES</b>	
Active Duty	28
Civilian	92
Contractor	559

MILCON	1 project (\$843K)
S/R&M	146 projects (\$107.2M)
Facilities Operation	\$28.2M







## The Civil Engineer School

*At The Air Force Institute of Technology*

### 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, 10 civilians, 10 contractors and one Individual Mobilization Augmentee.



**Col Paul Cotelleso**  
 Dean



**Dr. Jared Astin**  
 Associate Dean

### SIGNIFICANT ACCOMPLISHMENTS

The Civil Engineer School educated about 7,900 Air Force and Joint Service civil and environmental engineers through nearly 140 course offerings and other educational opportunities during FY15. To maximize flexibility and accommodate student schedules, these courses were offered via traditional in-residence and on-site settings, as well as through advanced distance learning methods including online, satellite, web-streaming and video-on-demand. Below are some of the highlights:

- Vital**
- Graduated and badged 129 new Air Force civil engineer officers in FY15, strengthening the career field's foundation and ensuring preparedness for combined engineer operations.
  - Sustained the close partnership among active-duty, Guard, Reserve and civilian civil engineers by fully integrating all groups into the "Total Force" initial skills badge-awarding course, producing 135 field-ready engineers in FY15.
  - CE School faculty members were by-name-requested to support development of all AF-level Civil Engineer playbooks and several process development teams.
  - Served as the Air Force Senior Facilitator for five Joint Engineer Operations Courses, certifying 60+ Air Force Civil Engineers and 300+ joint engineers for Joint Task Force Engineer operations.

- Relevant**
- Delivered timely updates to nearly 4,000 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.
  - Completed 12 offerings of OSHA-authorized 30-hr Construction Safety Standards, including seven delivered on-site; 416 total graduates in FY15, avoiding over \$750K in TDY costs and fees.
  - Individual all-star CE School faculty members were recognized with a national-level FY14 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, FY 14 and FY15 CGO of the Year Awards.

- Connected**
- Sustained AFIT's Professional Engineer Review Course, which provided 30 hours of proctored material to help prepare 86 joint service graduates for the rigorous Professional Engineer exam during FY15.
  - Led nine Inter-Service Environmental Education Review Board-approved course offerings, which produced over 257 joint warfighters.
  - Developed new and cutting-edge distance learning techniques that had impact beyond the Air Force, earning recognition with the Federal Distance Learning Association's 2014 Innovation Award and 2014 Course of the Year from the Defense Education and Training Network.
  - Realigned and revitalized the Readiness & 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.
  - Provided hundreds of hours of timely and responsive consultation services to engineers around the world for issues in management, engineering and environmental subject areas.



## GRADUATE SCHOOL OF ENGINEERING & MANAGEMENT

The Graduate School of Engineering and Management offers 23 master's level programs, eight doctoral programs and 15 certificate and continuing-education programs. The Graduate Engineering Management program is responsible for the research and education of approximately 20 civil engineers annually. Students learn to plan, organize and lead in a technology-focused organization and to apply critical thinking and analytical techniques to solve 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:**
- Dr. Al Thal, Ph.D.
  - Maj Greg Hammond, Ph.D., P.E.
  - Lt Col Christopher Stoppel, Ph.D., P.E.
  - Col Paul Cotelleso, Ph.D. (adjunct)
  - Dr. Jared Astin, Ph.D., P.E. (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 will 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 (i.e., infrastructure management and construction management). The strength of the program lies in its multidisciplinary approach in which core management principles are integrated with graduate-level technical education.

The program includes several courses specific to civil engineers: construction management, inspection, contracts and law; risk and finance; asset management, asset management modeling and risk modeling; geographical information systems; and crisis management.

### SIGNIFICANT RECENT ACCOMPLISHMENTS

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

### REPRESENTATIVE PUBLICATIONS FROM THE PROGRAM

- Alley, Stephanie L. (2015). A Probabilistic Assessment of Failure for Air Force Building Systems. Unpublished Master's Thesis (AFIT-ENV-MS-15-M-196).
- Amaddio, Kelley M., Miller, M.E., Elshaw, J., Finnomore, V. (2015) The Cognition of Multi-Aircraft Control (MAC): Proactive Interference and Working Memory Capacity, Proceedings of the International Symposium on Aviation Psychology, Dayton, OH. (Runner-up for best student paper.)
- Corpuz, Michael Q., Rusnock, C.F., Valencia, V.V., & Oyama, K. (2015). Reducing Wait-Time of a System of Clinics Using Discrete-Event Simulation. 2015 Institute of Industrial Engineers Industrial & Systems Engineering Research Conference, Nashville, Tennessee, May 30-June 2, 2015.
- Gartland, Daniel H. (2015). Test and Evaluation of Ultrasonic Additive Manufacturing for a Large Area Maintenance Shelter Baseplate. Unpublished Master's Thesis (AFIT-ENV-MS-M-158).
- Grandsaert, Patrick J. (2015). Assessments from the Air. The Military Engineer, No. 697, September-October 2015.
- Hammond, Gregory D., Vicki M. Bier, Alternative evacuation strategies for nuclear power accidents, Reliability Engineering & System Safety, Volume 135, March 2015, Pages 9-14, ISSN 0951-8320, <http://dx.doi.org/10.1016/j.res.2014.10.016>.

# CE CAREER FIELD



By 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 28,000 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. As sole voting members for the Civil Engineer Chiefs' Council, the MAJCOM Functional Managers sanctioned development of new CFETPs; initial skills and supplemental courses; and qualification training packages for multiple career fields. Additionally in the largest manpower study in over two decades, the 1st Manpower Requirements Squadron continued teaming with the functional managers and together approved functional reallocation models for 10 Operations Flight work centers. The majority of the heavy lifting was completed by MAJCOM representatives with monumental supporting efforts from experts in the field. This effort will pay huge dividends as we balance manpower across the Air Force later in 2016.

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 (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>.

# UPDATE



By CMSgt Ed Vallejo  
ARC Career Field Liaison

Training! Training! Training is a crucial component to all of our Weekend Warriors. When planning the annual Unit Training Assembly for the upcoming fiscal year and equipment is an issue, the Expeditionary Combat Support-Training and Certification Center, or ECS-TCC, from the Air Force Reserve Command located in Dobbins ARB, Georgia, provides training to Active, Guard and Reserves. The ECS-TCC is the heartbeat that keeps all of the traditional reservists educated and trained to execute their contingency mission.

The ECS-TCC is AFRC Professional Development Center instructor certified Active Guard Reserve personnel. They provide expeditionary war skills training for the Total Force. The center also provides other individual-focused AFSC training to include core task certification, Status of Resources and Training System reportable and Mission Essential Equipment Training. In addition, they also provide hands-on AFSC skills training to include: cable splicing; high- and low-voltage cable limitations; mobile runway edge sheaves; lightweight fairlead beam; field deployable environmental control unit; advanced design refrigeration unit; M-80/400K water heaters; TRICON refrigerated container; crane certification; tractor trailer training or 3T; minimum airfield operating strip marking system; small shelter system; base expeditionary airfield resources water distribution system; wastewater systems grade/slope; field deployable latrine; portable shower unit and shave stand; power auger operation; well points; surveying equipment; dynamic cone penetrometer; layout minimum airfield operating strip marking system; GeoExPT; Trimble software; unit control center operations; apparatus driver/operator certification; live day/ night fire training; live fire training; may day certification; vehicle driver operation training; EOD skills requirement that can't be accomplish at home station; CBRN response; chemical detection equipment; CBRN plotting; CBRN cell operations course-AETC MTT; and joint effect model.

To learn more about ECS-TCC visit its Sharepoint site at: <https://cs3.eis.af.mil/sites/OO-ED-RC-26/default.aspx>



## 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1 3E0X1

### ELECTRIC

Since the merger of Air Force Specialty Codes 542X0 (Electrician) and 542X1 (Electric Power Line Specialist) into 3E0X1 (Electrical Systems Specialist) in the early 1990s, many mission requirements have changed. The Air Force has made a major push toward underground utilities as well as a recent push toward utility privatization. With these changes in mission and the widespread availability of high-reach equipment, Airman are not climbing wooden poles with gaffs as frequently today as in the past. As a result, the climbing wooden poles using gaffs core requirement has been heavily scrutinized by civil engineer leaders and electricians.

illustrated less than 10 percent of all the Air Force bases responsible for maintaining their high voltage distribution systems routinely performed this task in direct support of their mission. Based on continuous requests from Airmen in the field and the results of this survey, the core requirement for maintaining certification on this task has been changed to a base-specific requirement. Initial training for climbing wooden poles with gaffs will remain in the apprenticeship course. In the event an Airman is assigned to a climbing base and has not climbed within 365 days, the Airman will be required to demonstrate proficiency or be retrained before he can be considered task qualified.

Another key consideration to this change was the April 2015 OSHA restriction of free-climbing. OSHA mandated the implementation of anti-slip devices while climbing poles and towers. This device makes it impossible for Airmen to fall more than two feet and limits Airman to hitchhike-climbing only.

An unknown author once wrote, "The definition of insanity is doing the same thing over and over but expecting different results."

**SMSgt Mark Morgan**  
3E0X1 Force Development Manager

An Air Force-wide survey on this topic was conducted in May 2014 covering a two-year period. The results of this survey



## 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2 3E0X2

### ELECTRICAL POWER PRODUCTION

In 2015, the Electrical Power Production career implemented major changes to its education and training programs. All these phenomenal changes touch every aspect of the career field's life cycle of training and aid in delivering highly trained, mission capable and educated technicians to directly support the charge of delivering reliable and efficient power generation and aircraft arresting system support anytime and anywhere.

preparing our Electrical Power Production technicians for the next generation of contingency power plant operations and maintenance.

The Air Force implemented the Air Force Credentialing On-line Opportunities that provides our technicians the ability to secure a valuable industry-level certification at little to no out-of-pocket expenses.

Each of our contingency training locations employed brand-new training plans that focus on the Department of Defense's newest high voltage mobile power plant, the BEAR Power Unit and the Mobile Aircraft Arresting System. As our mighty, high-voltage workhorse, the MEP-12A, is being phased out of the Air Force inventory the newly developed BPU course is

In our world-class formal training environment, the 366 TRS at Sheppard Air Force Base, Texas, implemented the new apprentice course upon the publication of the 3E0X2 Career Field Education and Training Plan on Oct. 1, 2015. The new apprentice course provides a modern approach to delivering technical training and more hands-on experience for each student. The 366 TRS also activated the brand new Contingency Power Generation supplemental course to deliver training on the BPU and tactical power generation equipment.

Capstoning education and training advancements AFIs 32-1043, 32-1062, 32-1064 and 32-1065 were all revised and published in early 2015. The brand new FC 3-260-18F, AF Aircraft Arresting System Installation, Operations and Maintenance, was released to augment AFI 32-1043

**SMSgt Samuel J. Schmitz**  
3E0X2 Force Development Manager



## 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1 3E1X1

### HVAC & REFRIGERATION

2015 was a monumental year for team HVAC! All proposed changes to CFETP and STS were approved this past May at the Utilization and Training Workshop (first in over a decade). Changes include a new apprenticeship course, significant reduction in CDC material, and a complete overhaul to the in-residence craftsman course. While in the pipeline, our newest Airmen will now get their hands dirty on new low-temp hot water systems, built-in air balancing trainers, bay-type radiant heaters and split system air conditioning trainers. The craftsman course has been reshaped to provide that next-level of expertise to our NCOs. In addition to the core fundamentals of the career field, the new seven-level curriculum will introduce state-of-the-art technology to calculate and determine

building load requirements, superheat and sub-cooling. The CFETP is anticipated to be published mid-2016 and will drive activation of all new courses.

400K water heater and is located in the CE-VLC. Like all contingency equipment web-based courses, individuals in five-level UGT must complete this course.

Over the past year, we've made significant improvements within contingency training. First, the TRICON Refrigerated Container System has finally arrived! Over the next several years, the TRCS will replace ADR-300 as the choice refrigeration system within the BEAR inventory. HVAC warriors can get exposure to this equipment at all CE training locations around the globe: Silver Flag, Regional Training Sites, Eagle Flag and the Expeditionary Combat Support-Training and Certification Center. Also, a new web-based course was developed for the

What to expect in 2016? Work with industry to introduce credentialing and certification into the career field.

Continue to train ... continue to lead!

**MSgt Christopher L. Tilstra**  
3E1X1 Force Development Manager



## 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1 3E2X1

### PAVEMENTS & EQUIPMENT

2015 was a productive year for the DirtBoy career field, one that will launch several initiatives over the next 12 months.

We kicked off the year by earning Professional Truck Driver Institute accreditation at our Dobbins and Fort Indiantown Gap tractor-trailer training, or 3T, locations making us the first Department of Defense entity to have an accredited tractor-trailer operator course. We followed that up in August with the launch of the Ramstein 3T course hosted by the 435th Contingency Training Squadron, the first ever PTDI course opened up outside of North America. Finally, we reached an agreement with the Air National Guard Bureau to open a fourth training site in FY17, this time hosted by the 188th CES at Fort Smith, Arkansas.

Another milestone for the DirtBoy career field was the approval to pursue civilian accreditation of our AFCEC-approved mobile crane training courses. Beginning FY17, you will gain a civilian certification upon completion of training. Since this certification will be good for 60 months, the crane refresher window will be extended to 30 months beginning Oct. 1, 2016.

engine fundamentals. The proposed changes were approved by the CE MAJCOM Chiefs during the January 2016 Utilization and Training Workshop and will result in the launch of a new 3-lvl course beginning in October 2016 followed by new CDCs in January 2017.

**SMSgt Eric G. Johnson Jr.**  
3E2X1 Force Development Manager

In September, subject matter experts from each MAJCOM arrived at Fort Leonard Wood for the Specialty Training Requirements Team. The team performed a top-to-bottom scrub of the Specialty Training Standard to ensure the right training is provided to the right people at the right time. Some changes proposed at the workshop included deconsolidating from ITRO, adding fence erection and the addition of small-



## 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1 3E3X1

### STRUCTURAL

The structures career field has made great progress this year. We're set to publish a new Career Field Education and Training Plan in January. Part II, The Specialty Training Standard, was adjusted as a result of 10 years of occupational analysis and reflects MAJCOM requirements. The changes within will lay the foundation for updates to our Technical School at Gulfport, Mississippi, as well as our Career Development Courses and Skills Knowledge Tests.

new course will undergo course validation through the first six classes to ensure our new Structures Airman receive the best possible training.

to add to our contingency curriculum. It highlights common issues and repair methods for large area maintenance shelters and provides hands-on fabric repair. A CBT is also in development. They've also developed and tested a new paint striper prototype that is scheduled to be fielded in 2018 along with a new UTC.

**SMSgt Todd Davis**  
3E3X1 Force Development Manager

The instructors at our schoolhouse under CMSgt(S) Jeff Ruckman, along with our Training Manager Brian Holmes and Curriculum Developer Minuard Moore, have gone above and beyond to develop new and improved curriculum. Their first class started Jan. 22, 2016, and graduate in March 2016. The

Our CDC writer, MSgt Josh Horton, has done a phenomenal job while revamping our courses. They're complete and set to publish following the first graduation class at technical school. Additionally, he consolidated the CDCs from three sets to two. Note: Only those who graduate after the new course in January will enroll in the new sets (Edit code 04). Airmen who were previously enrolled in edit code 03 will remain as such.

Our Silver Flag cadre, led by MSgt Lance Lewis, has developed a fabric shelter maintenance and repair block of instruction



## 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1 3E4X1

### WATER & FUEL SYSTEMS MAINTENANCE

This year has been a great year for training updates. The team at the 366th Training Squadron was in course development for the new apprentice course and several of our advanced courses. The Water and Fuel System Maintenance Apprentice Course with the incorporated changes from the 2014 Utilization and Training Workshop will begin in October 2016. During that same month, the career development course will be published and available for those students graduating the new three-level course. The CDCs will consist of two sets with four volumes each totaling eight volumes. Finally, expect the Career Field Education and Training Plan to be published Oct. 1, 2016, which will drive the new training requirements.

A new Air Force Instruction for the 3E4X1 career field was published in February 2015. AFI 32-1067, Water and Fuel Systems, combined AFIs 32-1066, 32-1067, 32-1069 and 32-7041, updated natural gas and liquid fuels system program requirements; and identified tiered waiver authorities for unit level compliance items.

can be accomplished via computer based training on the Civil Engineer Virtual Learning Center.

So what's next? Moving forward, expect changes to fire suppression systems training, specifically foam systems. There will be several different training platforms in focus to include distance learning ... a tried and true method of training delivery. The Fire Suppression Maintenance Course will be evaluated and adjusted to meet current operation and maintenance requirements. Finally, vendor training will be evaluated to determine if current industry can bridge any training gaps.

**SMSgt David M. Kledzik**  
3E4X1 Force Development Manager

I would like to reiterate that the personnel protective equipment and uniform wear requirements for personnel working on or near energized circuits are published in Attachment 2 of AFI 32-1064, Electrical Safe Practices. Additionally, the annual training requirement for Arc Flash Safety Awareness



## 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3 3E4X3

### PEST MANAGEMENT

During 2015, Pest Management saw great strides toward the improvement of training and education programs. The most significant updates occurred within on-the-job training, wartime task standards and professional development. The first updates hit the field in May, when the Career Field Education and Training Plan was published.

May 2015 also marked the start of the field's new Apprentice course as well as the revision of the Career Development Courses. The 366th Training Squadron worked diligently to overhaul seven volumes of CDCs and the 33-day course in an effort to better meet the needs of our Airmen and the Air Force community. Their efforts resulted in the CDCs being reduced to five volumes and a streamlined 25-day course that continues

to exceed Environmental Protection Agency and Department of Defense requirements for pesticide applicator certification. Currently, the CDCs are undergoing final review and are projected to be available to the field in April 2016.

Experts within Pest Management also embarked on the adventure of updating the Silver Flag curriculum. Nine change requests were presented and approved during the Expeditionary Training Working Group held in July 2015. Approval of these requests led to updates within the WTS and lesson plans. The new curriculum was implemented in October 2015. Updates included the removal of nuisance pests and recurring work program elements, which allowed for additional

training hours within disease vector surveillance, animal management and equipment maintenance.

Furthermore, opportunities for personnel to gain credentials associated with the AFSC were made available via Air Force COOL. Credentials, such as associate and board-certified entomologist along with certified hazard control manager are currently available. Additional credentials have been submitted for review with hopes for approval during FY16.

**MSgt Charles E. Curnutte II**  
3E4X3 Force Development Manager



## 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1 3E5X1

### ENGINEERING

2015 was a year of achievement for the Engineering career field. It saw the long-overdue publication of the new Career Field Education and Training Plan in October, which will lay the groundwork for important changes to training for all 3E5 Airmen.

Along with the CFETP publication, you will now have access to updated AF Qualification Training Packages containing the most up-to-date information available. These QTPs that were written by subject matter experts at the base level will ensure that our 3E5 Airmen are prepared to support the mission anywhere, anytime.

You will see new CDCs in summer 2016, and the first thing you will notice is that we no longer have separate CDCs for the 7-lvl Airman. The proposal to discontinue the 7-lvl CDC and merge that information into the 5-lvl CDC was made during the 2014 Specialty Training Requirements Team and approved by the MAJCOM Functional Managers at the Utilization and Training Workshop.

At Fort Leonard Wood, Missouri, the decision was made to replace AutoDesk Map3D with ESRI ArcGis desktop software during the Geographic Information System portion of training. Providing this software training to the 3-lvl Airmen will better prepare them once they arrive at their duty station.

Finally, it was determined to cancel the Advanced GIS course for this fiscal year. We are re-evaluating the delivery method to determine what avenue will best provide qualified craftsman and we expect the course to be back on line in FY17.

**SMSgt Eric G. Johnson Jr.**  
3E5X1 Force Development Manager



## 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1 3E6X1

### OPERATIONS MANAGEMENT

This has been a year of preparation for the 3E6s and for the CE enterprise. We overcame many challenges, including the TRIRIGA deployed to Joint Base Andrews; sustained R&O operations AF wide, revising a few AFIs/AFPAMS; and crossed the finish line by creating a new Manpower Model for Operations Engineering.

It was determined during the JB Andrews implementation that we needed to pause the remaining TRIRIGA system rollout. In the meantime, R&O sections have been plugging away at updating Builder and incorporating PMTLs into Preventative Maintenance Program. R&O sections have been working diligently on data cleanup. Being proactive in this endeavor will pay dividends once bases get TRIRIGA. With AFIMSC standing

up officially, all project funding and decisions are being made at the AFIMSC level, and using data from Builder will make the best enterprise investment.

To help with changes, teams of subject matter experts have updated relevant playbooks. With a few AFIs and AFPAMS becoming obsolete and AFI 32-1001 being scaled back, playbooks are becoming even more imperative to the field for guidance. AFCEC/COO has held numerous DCSs with the bases for Work Management, Preventative Maintenance and Material Control to help keep the field abreast on changes.

AFCEC has been working with the 1st Manpower and Requirements Squadron to right-size the Operations Flights.

Within Operations Engineering, we built three separate models (one each) for Service Contracts, Material Control and R&O sections. We expect to finalize manpower standards in FY16.

During FY15, we continued to explore our options for updating our schoolhouse course, CFETP, CDCs and AFQTPs. For FY17 we will be SKT exempt for WAPS testing and will also incorporate asset management principles into our formal training curriculums.

**MSgt Amy Dare**  
3E6X1 Force Development Manager



**3E7X1**

**3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1 3E7X1**

**FIRE EMERGENCY SERVICES**

The Fire Emergency Services career field continues to lead the way in training! In 2015, the Louis F. Garland Fire Academy was selected by AETC to test the Blackboard distance learning platform to deliver the in-resident course content from Fire Officer IV. LFGFA delivered three classes graduating 50 students. Results from this trial course were well received, and efforts are underway to solidify this method of delivery within our Fire Emergency Services community for years to come.

In 2015, back-up cameras and Idle Reduction Technology became standard issue on all new fire trucks. Back-up cameras have been proven to prevent accidents and save lives! Idle Reduction Technology takes advantage of an on-board gas

powered generator whereby the vehicle engine transfers into a standby mode reducing gasoline consumption by two-thirds!

Under the National Response Framework structure, each federal agency is required to ensure incident management personnel likely to respond to a natural disaster, act of terrorism or other manmade disaster are credentialed IAW 6 U.S.C. 320. NIMS Guide for Credentialing Personnel. The Air Force Fire Emergency Service credentialing program was established on Oct. 1, 2015, identifying five distinct levels within the Incident Command System structure; Incident Commander, Safety Officer, Operations Section Chief, Planning Section Chief and

Staging Area Manager. Air Force Fire Emergency Services have credentialed over 100 of our members.

**CMsGt Scott Knupp**  
**3E7X1 Career Field Manager**



**3E8X1**

**3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1 3E8X1**

**EXPLOSIVE ORDNANCE DISPOSAL**

The career field received OSD approval for implementation of a Critical Skills Retention Bonus. The approved CSRB is targeted at 3E8 master sergeants and senior master sergeants who have completed at least 20 years of service, but not more than 22 years of service. The CSRB provides bonus amounts in \$30K, \$50K and \$75K increments for obligated service of three, four and five years, respectively, without exceeding mandatory retirement or 25 years Active Duty.

EOD partnered with AF Medical Operations Agency and MAJCOM EOD support staffs to capture and identify a comprehensive list of career field-specific occupational health hazards. This data is being used in an effort to begin development of a

standardized system that identifies occupational hazards based on the 3E8 career field as a rule and locations as an exception. Additionally, identification of the occupational hazards will lead to the development of a standard set of baseline examinations upon entry into the career field.

The career field implemented a new Course Training Standard for the EOD Preliminary Course to better prepare EOD candidates for success at NAVSCOLEOD. The new CTS resulted in the modification of training objectives to ensure EOD candidates were better developed and prepared for success in NAVSCOLEOD's high fail divisions. Some of the training added included the Automated EOD Publication System and Mobile

Field Kit, assembling and placing an Mk 2 Dearmer, and a training exercise to apply render safe procedures.

**CMsGt Martin Cortez**  
**3E8X1 Career Field Manager**



**3E9X1**

**3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1 3E9X1**

**EMERGENCY MANAGEMENT**

The AF Wartime Analysis & Requirements Branch initiated the 3E9X1 Wartime Manpower Study with two workshops. The first focused on FY14-18 Defense Planning Guidance Integrated Construct Scenarios at high threat, en-route, homeland defense and foundational locations. The second focused on in-garrison planning, preparedness and expeditionary engineering requirements.

Air Force Civil Engineer Center's Emergency Management Division hosted the Air and Space Interoperability Council's Force Protection Working Group Oct. 5-9, 2015, at Panama City Beach and Tyndall AFB. The meeting discussed Force Protection and Chemical, Biological, Radiation and Nuclear programs for interoperability strategies, and emerging threats and systemic

challenges within the five English-speaking nations (Australia, Canada, New Zealand, United Kingdom and the United States).

The "Be Ready" Product Catalog received the 2015 Top Silver ADDY® Award digital for advertising from the American Advertising Federation's Panama City Chapter. The awards are the advertising industry's largest and most representative competition. The campaign also won the 2014 Bronze Telly Award for its active shooter vignette.

The Air Force hosted the Joint Program Protective Clothing Shelf Life Extension Integrated Process Team. Information from this IPT was used to garner approval for extending the shelf life of Air Force-owned JSLIST suits from 15 years to 20 years,

avoiding approximately \$9M in annual replenishment costs over the extension period.

Twenty-four Air Force Qualification and Training Packages were updated. Each AFQTP is the foundation to qualification on each task items. Emergency Management also participated in the initial 12th Air Force-led Theater Security Cooperation event with the Brazilian Air Force and saved \$62.4M from three chemical warfare defense equipment programs.

**CMsGt Anthony Hatcher**  
**3E9X1 Career Field Manager**



# SME Directory

(Subject Matter Experts) as of 2/16/2016

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# SME Directory

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<http://www.youtube.com/afcivilengineer>

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 Email: [Afcec.pa@us.af.mil](mailto: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](mailto: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](mailto: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](mailto: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](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>



# Air Force Civil Engineering History

## Significant Events Timeline



- 4 Jun 1940 • The 21st Engineer (Aviation) Regiment was activated at Fort 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 titled 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 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 AFRCs 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.

- May 1985 • 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, a forerunner of the Air Force Real Property Agency, was activated.
- 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 • 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.
- 11 Sep 2001 • In the aftermath of the World Trade Center and Pentagon bombings on 11 September 2001, Air Force civil engineers provided a wide range of support to the recovery efforts and homeland defense initiatives.
- Sep 2001 • Operation Enduring Freedom Prime BEEF teams conducted beddown operations at bases in Southwest and Central Asia. 823 RHS undertook construction projects, including major MILCON projects.
- 10 Oct 2001 • An Air Force civil engineer became the first fatality of Operation Enduring Freedom. MSgt Evander E. Andrews, assigned to the 366 CES at Mountain Home AFB, Idaho, died in a heavy equipment accident at Al Udeid AB, Qatar.
- 19 Mar 2003 • Operation Iraqi Freedom began as Air Force engineers opened new bases, expanded additional bases, and recovered captured Iraqi bases.
- 1 Feb 2006 • HQ USAF/ILE was redesignated A7C as part of the HAF transition to the A-Staff structure.
- 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 AFCEA.
- 22 Jun 13 • Maj Gen (S) Gen Theresa C. Carter became the first woman to serve as The Civil Engineer.



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