

Subject Matter Experts

The responsibilities of today's Air Force civil engineers span nearly every discipline of engineering and beyond. Our engineers frequently are called upon to provide a wide range of expertise to support commanders at the installation, combatant and major command levels. Because every civil engineer cannot be the authority in every area of engineering, the Air Force Civil Engineer Center ensures subject matter experts are available to them.

Each of our civilian SMEs offers the unique blend of experience, education and training to be the Air Force's authority in an area of expertise. SMEs provide continuity, as well as assurance that our civil engineering "know-how" keeps pace with lessons learned, changing technology, federal guidance and industry standards. The standards and criteria they publish help Air Force civil engineers work more skillfully and efficiently.

Although they might have gone by another name, subject matter experts have served within civil engineering for more than 40 years. Most SMEs have a master's degree or higher in their functional area, are registered professionals (or the equivalent) and are recognized as an expert by their peers and industry. Many within the Department of Defense and outside the Air Force benefit from civil engineering's subject matter expertise. They include joint working groups, industry partners and vendors, professional organizations and research programs.

On any given day, AFCEC SMEs can be found resolving issues impacting their area of expertise, developing technical guidance, giving advice to major command or installation engineers, working with national laboratories to advance the art of engineering, developing and advocating for required technical courses or mentoring technical personnel across the Air Force. Collectively, our SMEs represent a vast wealth of engineering knowledge and technical expertise. We hope you use the following pages to learn about the areas of expertise and take every advantage of this valuable resource.

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Air Base Requirements

Robert "Ken" Crowe, AFCEC/CX

Scope: The Air Force Air Base Requirements SME is responsible for providing expert advice to the Air Force civil engineer, air staff, major commands, AFIMSC, AFCEC and base commanders for air base systems, equipment, technology and data ensuring agile combat support capabilities are identified for establishment, protection, sustainment and transition of expeditionary, in-garrison and contingency installations and air bases. He is Requirements Management Certified at B+. He has authority and responsibility for air base policy and requirements processes relative to worldwide civil engineer mission capabilities and air base mission capability objectives identified in defense planning guidance and national military strategy and flow-down strategic guidance. He is responsible for the CE capability baseline as related to Air Force task list. He leads CE air base capability requirements through the Joint Capabilities Integration and Development System or functional requirements process and directs air base operational capability requirements document development. He provides technical information, programming and budgeting estimates, and high-level capability performance objectives to support CE air base requirements and acquisition.

Vision: Deliver an accurate capabilities baseline to compare current capabilities and future operational capabilities/gaps leading to solutions for maintaining air dominance

Air Base Recovery and Acquisition

Alessandra Bianchini, Ph.D., PE, AFCEC/CX

Scope: The Air Base Recovery and Acquisition program provides guidance related to the formulation of planning and development policy for worldwide air base recovery and expert guidance on technology development and acquisition strategies. The SME is the Air Force's authority in air base recovery planning for all actions (peacetime, pre-attack actions, trans-attack, post-attack, etc.). The SME leads investigations of operational deficiencies and provides guidance to support research and development strategies for air base recovery of infrastructure worldwide to improve design, construction operations and maintenance criteria and standards, and overall base resiliency. Furthermore, the SME is the primary interface with the research development test and evaluation community to assure research investments and development in support of CE agile combat support capabilities, including resiliency theories. She also prepares technical articles, engineering technical letters, guidance, training and other official publications and represents the Air Force on committees and technical working groups while staying current on policy and technical developments.

Vision: Ensure short- and long-term air base operational capability through program development and research strategies toward air base protection, resiliency and recovery technologies

Airfield Criteria, Markings, Aircraft Arresting Systems

Barry Mines, Ph.D., PE, AFCEC/CO

Scope: The Airfield Criteria, Airfield Markings and Aircraft Arresting Systems SME provides technical assistance in three areas. The SME works closely with the Air Force Life Cycle Cost Management Center at Robins AFB, Georgia, which procures aircraft arresting systems, and the Air Force Installation and Mission Support Center, which provides program management. The SME promotes design and construction excellence, develops design criteria for Air Force facilities, offers technical consultation and represents the Air Force on the Tri-Service Aviation Discipline Working Group to develop consolidated DOD engineering standards and criteria. The program is wide ranging, covering criteria for airfield layout, design, imaginary surfaces and proper siting clearances. The program also encompasses guidance for the airfield waiver process. The SME interfaces with the Air Force Flight Standards Agency, the other services, the Federal Aviation Administration and NATO to develop common standards. The SME provides assistance to Air Force engineers, community planners, foreign military sales program managers and system program offices.

Vision: Facilitate safe airfield operations through proper siting criteria for facilities in and around operational airfield surfaces

Air Resource Management

Francisco Castaneda III, PE, AFCEC/CZ

Scope: The Air Resource Management program promotes air quality compliance excellence, develops execution policy/guidance, offers technical consultation/advice and tracks regulatory compliance. The program provides the compliance tools, technical resources, expertise, process flow charts, playbooks and techniques to achieve regulatory compliance with the Clean Air Act. In addition, the program assists installations in determining the most relevant air quality standards and implementing the most efficient and effective management approaches. ARM aids in evaluating air quality compliance through annual air emission inventories, greenhouse gas inventory reports, compliance certifications, training and assistance with the permitting, air quality impact analysis and general conformity processes. The program executes an effective and sustainable dual Deming cycle (Plan-Do-Check-Act) approach for both long- and short-term continuous quality improvement in regulatory risk reduction, personnel proficiency and contingency planning. The program strategically executes guidance/policy interventions that mandated effective permit compliance and record-keeping procedures. The program also identifies new/evolving air-quality requirements.

Vision: To protect the Air Force mission by enhancing natural infrastructure resources through regulatory compliance, risk minimization, professional competency and pursuing emissions reduction

Architecture

Randall L. Lierly, RA, AFCEC/CF

Scope: The Architecture program provides guidance on facility architecture, interior design, landscape architecture and sustainability, as well as tools, resources, expertise, processes, technical information and techniques to achieve design excellence in these areas. The Architecture SME is responsible for program guidance, policies, promotion and implementation. The SME develops design criteria for Air Force facilities and represents the Air Force on DOD and technical panels, such as the Tri-Service Architecture Discipline Working Group under the Unified Facility Criteria program. The SME works with the career field manager on mentoring, training, education, recruitment, retention and professional registration opportunities. The SME also manages design standards, accessibility and design technology issues.

Vision: To facilitate and advance the confluence of architects', interior designers' and landscape architects' skills, knowledge, creativity, commitment, vision and resources to promote and sustain design excellence of Air Force facilities

Antiterrorism, Security and Small Arms Range

Jeff Nielsen, PE, AFCEC/CO

Scope: The Antiterrorism program provides guidance and criteria on facility security engineering to mitigate the risk from terrorist attacks and protect Air Force assets. The SME manages the program; promotes site planning, design and construction compliance; develops design criteria; offers technical consultation; provides experience; and represents the Air Force on the Tri-Service Security Engineering Working Group developing DOD engineering standards and criteria for facility antiterrorism mitigation. The program covers both garrison and expeditionary requirements. Security engineering encompasses a wide range of threats, including explosive devices, direct- and indirect-fired weapons, airborne hazards, forced entry and surveillance. The SME also manages Air Force small arms range design and construction criteria and standard facility drawings. The small arms range SME works in collaboration with the Air Force Security Force Center and the Air Force Medical Support Agency to review the design of all new and rehabilitated ranges and to maintain safe operations of Air Force ranges.

Vision: Improve protection against terrorism for DOD personnel and other assets with enhanced planning and design standards in new and existing facilities

Chemistry

G. Cornell Long, AFCEC/CZ

Scope: The Chemistry program promotes the acquisition of defensible quality data by providing guidance on chemistry practices and quality systems and supplementing with training, consultative expertise and other specialized technical information to support environmental restoration goals and objectives. The Chemistry SME is responsible for the advocacy and implementation of environmental data acquisition policies and for oversight of the design, planning, implementation and review of environmental quality systems, including life-cycle project planning, data collection and review and technical consultation. The SME represents the Air Force on tri-service and interagency workgroups and committees — such as the DOD Environmental Data Quality Workgroup and the Intergovernmental Data Quality Task Force — developing standards of chemistry practice of interest to the Air Force and the DOD. The SME provides Air Force oversight for the DOD Environmental Laboratory Accreditation Program to ensure analytical testing consistency and compliance with the DOD Quality Systems Manual.

Vision: Promote good chemistry practices and systematic project planning in the acquisition of quality data to support defensible decision-making

Construction Criteria

David M. Duncan, RA, LEED AP, AFCEC/CF

Scope: The Air Force Construction Criteria program encompasses technical development, implementation and problem resolution for programming, design and construction of Air Force facilities. The SME serves as the Air Force's final technical authority for matters relating to construction criteria. These criteria include, but are not limited to, government/agency policies; laws and regulations; Unified Facility Criteria; and various building codes. The SME represents Air Force interests on numerous committees and working groups, including the Coordinating Panel for Unified Facility Criteria and the Board of Direction for the Whole Building Design Guide. The SME provides implementation guidance on new construction techniques and technologies, and the introduction of such technologies to the Air Force. The Construction Criteria SME is responsible for technical matters concerning overall building construction and how best to integrate various systems into single projects.

Vision: Increase construction criteria knowledge and maintain continuous process improvement to better identify and evaluate Air Force construction criteria

Cultural Resources Management

James D. Wilde, Ph.D., Registered Professional Archaeologist, AFCEC/CZ

Scope: The program comprises three broad categories: prehistoric and historic archaeology; historic buildings and structures; and American Indian tribal issues (including those of Native Alaskans and Hawaiians). The SME is responsible for program guidance, policies, promotion, assistance and implementation of and adherence to the National Historic Preservation Act; the Archaeological Resources Protection Act; and the Native American Graves Protection and Repatriation Act, among others. The SME oversees and directs the Air Force CRM Program, including organizing an annual Air Force CRM workshop; chairing the Cultural Resources Panel; developing and updating AFIs (e.g., 90-2002, "Air Force Interactions With Federally Recognized Tribes" and AFI 32-7065, "Cultural Resources Management"); managing the cultural resources eDASH page and playbook; and collecting, compiling and reporting CRM and Native American data required by air staff, the Department of Defense, the Department of Interior and Congress. The SME represents the Air Force on a variety of DOD and other federal agency working groups, committees and teams.

Vision: Increase mission capacity on bases and ranges by creative compliance, accurate inventories, expert planning and engagement with stakeholders and commanders

Corrosion Control

Robert J. "Bob" Evans Jr., AFCEC/CO

Scope: The SME focuses on preventing and mitigating material deterioration of facilities and infrastructure by addressing the four areas of corrosion control: cathodic protection, protective coatings, industrial water treatment and design/material selection. The SME represents the Air Force on the Department of Defense Corrosion Prevention and Control Working Integrated Process Teams, which develop criteria, tools and training to prevent and mitigate corrosion degradation of DOD assets to include facilities and infrastructure. The SME is also the Air Force Facilities and Infrastructure representative on the AF Corrosion Prevention and Control Working Group, which researches, predicts and prevents corrosion while managing corrosion-related strategies for acquisition, construction and maintenance of equipment, weapons, facilities and infrastructure. The working group identifies pervasive corrosion issues, provides advocacy within member organizations and monitors corrosion activities related to safety, cost and system availability. The ultimate outcomes of the group's activities are enhanced systems safety, higher systems availability and lower operating costs.

Vision: Provide new technologies, training, updated policy and accurate requirements identification to mitigate and prevent corrosion degradation of facilities and infrastructure

Electrical: Airfield Lighting/Lightning/Grounding Systems

Joanie Campbell, PE, AFCEC/CO

Scope: The SME ensures technical references comply with current National Fire Protection Act, National Electric Code, DOD, Air Force and other guidance and provides technical information to installations and commands to assist with system design. The SME reviews designs within the electronic controls realm and provides comments. The SME remains current on new technology and decides when this technology is reliable enough and maintainable enough for Air Force use. The SME provides interpretation of all AFIs and UFCs within controls topics and directs the focus of the bases to intent rather than meeting a checklist. The SME is a member of NFPA 780 Lightning Protection Committee and represents the AF during the three-year process of developing updates. The SME also represents the U.S. on several NATO panels and working groups and on the ASIC Agile Combat Support Working Group, ensuring that NATO and ASIC bases meet, as closely as possible, the standards of the Air Force.

Vision: Familiarize Air Force personnel with concepts of equivalency and intent, and remove focus from checklists that create unnecessary expense and work

Electrical Engineering Power and Lighting

Rexford Belleville, PE, AFCEC/CO

Scope: The SME delivers guidance on electrical power supply and distribution; energy security, lighting and controls; stationary battery rooms; emergency and standby generators; interior and exterior electrical systems; and electrical safety. The program is wide-ranging, covering many aspects of conventional facility design, repair, operation, maintenance and electrical safety. The SME manages the program, promotes design and construction excellence, develops design criteria for Air Force facilities, offers electrical technical consultation, provides experience and represents the Air Force on the Tri-Service Electrical Working Group. The working group develops unified DOD engineering standards and criteria for facilities and infrastructure with authority over electrical code issues in the U.S. Central Command area of responsibility.

Vision: Facilitate and advance the confluence of electrical engineering skill, knowledge, creativity and commitment to promote and sustain facility design excellence

Emergency Management

Mike Connors, AFCEM, AFCEC/CX

Scope: The Emergency Management program provides emergency management and chemical, biological, radiological, nuclear defense guidance, policy, training products and logistical support to Air Force installations worldwide. The main mission of EM and CBRN personnel is saving lives while minimizing the loss or degradation of resources to continue, sustain and restore combat support operational capability in an "all-hazards" physical threat environment. The ancillary missions of the program are to support homeland defense operations and to provide support to civil and host-nation authorities. The program incorporates in-garrison and deployed forces' cross-functional actions to implement integrated homeland defense, medical, CBRN, antiterrorism, force protection and crisis and consequence management operations and requirements.

Vision: Ensure the Air Force has a single, integrated "all-hazards" program that effectively and efficiently protects the Air Force community and mission capability; leveraging joint, interagency and civilian capacity as necessary while ensuring continued operational capability

Energy Surety

Tarone Watley, MBA, PE, Security +, AFCEC/CO

Scope: Energy resiliency means the ability to prepare for and recover from energy disruptions that impact mission assurance on Air Force installations. As one of three cornerstones to the Air Force – mission assurance through energy assurance – energy surety is vital to the launch and recovery of air and space vehicles and conducting cyber and space operations. The scope of energy resiliency includes properly reporting, tracking and maintaining information on Air Force installation utility distribution system outages; identifying and mitigating single points of failure and infrastructure maintenance issues within those distribution systems through a comprehensive Installation Energy Master Plan; and finally, consulting with the Air Force Office of Energy Assurance, which executes resilient energy projects that leverage clean and cost-effective technologies.

Vision: Enable, maintain and support Air Force missions with 21st century cyber-secure, cost-effective and resilient energy systems

Environmental Impact Analysis

Michael Ackerman, AFCEC/CZ

Scope: The Environmental Impact Assessment program provides enterprisewide guidance, tools and execution support to ensure adequate evaluation and consideration of environmental impacts during the federal decision-making process. The subject matter expert is the Air Force's authority on environmental impact assessment for Air Force actions in the U.S. and abroad. The SME serves as the senior consultant on issues related to the execution of the environmental impact analysis process. The SME conducts policy reviews, prepares technical articles and presentations, develops training and guidance, and represents the Air Force on committees and technical working groups while staying current on policy and technical developments. The SME provides guidance to Air Force personnel and organizations on EIAP execution in support of critical Air Force projects.

Vision: Ensure timely support of Air Force mission requirements and better, more informed decision-making through focused and disciplined execution of EIAP

Energy Conservation

F. Paul Carnley, PE, AFCEC/CE

NEW!

Scope: As the DOD's largest energy consumer, the Air Force has an obligation to taxpayers to proactively manage energy and water consumption and apply sound engineering practices to minimize use while assuring mission readiness. The Energy Conservation SME provides expert engineering solutions, enabling installations to reduce and conserve critical commodities through promulgation of energy conservation opportunities and implementing new and innovative technologies and programs. The SME also provides expert oversight and management of programs designed to reduce energy and water consumption, such as resource efficiency managers and deployment of the AF Advance Meter Reading System. The SME provides expertise for all levels of project and policy implementation, training and assistance to improve energy performance, serves on interagency working groups and provides technical support with energy- and water-efficient products and renewable energy technology.

Vision: Ensure Air Force installations worldwide emphasize energy and water conservation through innovative engineering, while maintaining mission readiness

Energy Savings Performance Contracts

Michael Giniger, PE, AFCEC/CN

NEW!

Scope: The Air Force is DOD's largest energy consumer and has an obligation to reduce energy, water and petroleum use, as well as greenhouse gas emissions. ESPC/UESCs are a partnership between a federal agency and an energy service company or utility provider. The ESPC/UESC SME delivers guidance to Air Force bases on development of third-party financed energy savings contracts. These complex projects require energy conservation measures that will generate sufficient energy cost savings to pay for the project over the term of the contract. This requires an unbiased adviser who guides the base acquisition team through the ESPC/UESC process. The SME provides expertise for all levels of project and policy implementation, training and assistance to ensure compliance with energy performance, assistance on interagency working groups, technical support with energy- and water-efficient products and renewable energy technology. In summary, the SME assists Air Force bases in meeting energy-related goals and provides energy leadership.

Vision: With a national energy security focus, SMEs ensure ESPC/UESCs emphasize energy conservation, renewable energy and deployment of emerging energy technologies.

Expeditionary Engineering

Gregory A. Cummings, AFCEC/CX

NEW!

Scope: Executes and implements established policy on the use and management of assigned civil engineer forces supporting the total force posture (Air National Guard, Air Force Reserves and active duty). Participates in broad and extensive studies in the management, administration and technical and professional direction of all functions, which include worldwide readiness training; readiness program policy implementation and guidance; military mobile force structure, contingency and wartime operations planning; civil engineer wartime equipment; civilian wartime force posture; and exercise, contingency deployment support and readiness-related asset management principles. Applies Air Force and joint military combat support experience to plan, organize and determine the necessary policies, regulations, directives, programs, doctrines and procedures for the establishment and maintenance of assigned major Air Force programs (e.g. Prime BEEF and RED HORSE).

Vision: Provide best tools and practices to organize, train and equip innovative Airmen engineers to accomplish Air Force missions in support of our warfighters enhancing air, space and cyberspace operations across the globe

Explosive Ordnance Disposal

John Olive, Ph.D., AFCEC/CX

Scope: The Air Force Explosive Ordnance Disposal SME advises senior leaders on the development, sustainment and strategic direction of the EOD program, while providing mentorship to EOD Airmen across the enterprise. Provides executive management, planning, programming and technical expertise in all areas of EOD readiness, support to civil authorities, homeland defense and combat operations, force protection, range activities and research, development, test and engineering efforts. The SME is responsible for oversight and development of EOD tactics, techniques and procedures, and is the final authority for technical issue resolution. Advises on requirements to integrate EOD response to weapons of mass destruction, nuclear, unexploded explosive ordnance and counter-improvised explosive device emergencies to support installation commanders' single-integrated response programs. Represents the Air Force as adviser to the Department of Defense Operational Environmental Executive Steering Committee on Munitions, DOD Explosive Safety Board and other joint and national level committees developing DOD and industry EOD and unexploded explosive ordnance standards.

Vision: Enable all-hazard EOD response across the full-spectrum of military operations, leveraging innovative technologies and employing highly trained Airmen

Facility Cybersecurity

Timothy Nauman, AFCEC/CO

Scope: Cybersecurity is a requirement for all Air Force information technology systems, including control systems and platform IT. The SME provides technical support that bridges the civil engineer facilities community and its requirements as an IT service user with the DOD IT community and its requirements as a service provider. The SME provides guidance to all levels of Air Force leadership with strategic efforts that enable facility-related cybersecurity to the DOD, Air Force, and Air Force civil engineer community; provides technical support to incorporate facility-related cybersecurity requirements into the products of AFCEC directorates; inform AFCEC and AF civil engineer squadrons of industry best practices, impact of new technologies and their security vulnerabilities and the current industry efforts to secure control systems. The SME also supports initiatives and efforts to secure funding and policy guidance for an enterprise strategy that brings cybersecurity and its culture into the AF

Vision: Enable cybersecurity within the Air Force civil engineer community through guidance, technical support and the advocacy of resources

Fire Protection Engineering

Michael D. Six, PE, AFCEC/CO

Scope: The Fire Protection Engineering SME recommends policy, provides guidance and coordinates the exchange of information on all matters related to fire protection engineering management throughout the Air Force. The SME ensures effective programs to support mission continuity and provides operational and maintenance guidance. The SME represents the Air Force on the DOD Fire Protection Engineering Working Group to develop consolidated technical criteria and on the Technical Support Working Group subgroup for fire protection features. The SME works closely with contract support activities to ensure that contract templates adequately address installation needs and with career field managers to support expeditionary and force projection initiatives. The SME is a principal member of the national consensus code and standard writing committees that prepare the standards for airport facilities, gaseous fire extinguishing systems and foam-water fire extinguishing systems.

Vision: Air Force will lead the nation in criteria for fire alarm systems, hangar fire suppression systems and firefighter training facilities

Fire Emergency Services

Vacant, AFCEC/CX

Scope: The Fire Emergency Services SME develops policy guidance and training products and provides logistical support with the primary mission of saving lives, property and the environment from the effects of fires, hazardous materials, weapons of mass destruction and natural or man-made disasters. In addition, firefighters stabilize and mitigate an incident or event to sustain and restore combat support operational capability at all Air Force installations worldwide. The SME serves as the chairman of the North Atlantic Treaty Organization Crash Firefighting Rescue Panel and as a principal member of the national consensus code and standard writing committees that develop National Fire Protection Association standards. The SME helps manage and execute the fire vehicle modernization program and coordinates with the career field manager on recruiting, training, educating and retaining personnel. The SME also manages and maintains program accreditation for the DOD Fire and Emergency Services Certification System.

Vision: Build America's premier fire and emergency services capability to save lives, property and protect the environment

Fuels Facilities

Stephen M. Day, PE, AFCEC/CO

Scope: The Fuel Facilities SME provides tools, technical consultation, information and techniques for storing, distributing and dispensing aviation and ground fuels. This includes transfer piping, above- and underground storage tanks, pressurized hydrant fueling systems and vehicle service stations. The SME represents the Air Force on the DOD Fuels Facility Engineering Panel, comprising senior technical engineers of each service and the Defense Logistics Agency. The panel develops and updates standardized criteria, construction specifications and designs across the DOD. Additionally, the SME is the head of the U.S. delegation to the NATO Petroleum Handling Equipment Working Group responsible for developing and updating NATO standardization agreements for fuels infrastructure and equipment. Additionally, the SME is responsible for natural gas systems, including on-base pipeline infrastructure and back-up systems, facility plumbing systems, systems for potable water, venting and wastewater systems in a facility from the facility entrance or backflow preventer. Finally, the SME is responsible for vertical transportation equipment including elevators, escalators and cranes.

Vision: Provide premier engineering expertise to ensure excellence in design, construction and maintenance of Air Force flight and ground fuels facilities

Geotechnical and Structural Engineering

Robert Dinan, PhD, PE, AFCEC/CO

Scope: The Geotechnical and Structural Engineering SME provides guidance on facility geotechnical and structural design. The SME interprets and contributes to the development of design criteria for Air Force facilities, offers geotechnical and structural engineering technical consultation, provides structural engineering experience and represents the Air Force on the tri-service Geotechnical and Structural Discipline working groups to develop consolidated DOD engineering standards and criteria. The Geotechnical and Structural engineering programs are wide-ranging, covering conventional facility design, seismic engineering and structural hardening. The SME was recently appointed as the seismic safety coordinator for the Air Force and assists with the bridge inspection and dam inspection programs. The SME is a member of the American Concrete Institute and the Interagency Committee on Seismic Safety in Construction.

Vision: Represent the Air Force in all aspects of geotechnical and structural engineering to promote and sustain design excellence of Air Force facilities

Hydrogeology

John Gillespie, AFCEC/CZ

Scope: The Hydrogeology program integrates installations' geological and hydrological natural resources into natural infrastructure asset management plans. The SME serves as AFCEC's technical authority for remedial investigation, which includes providing tools, resources, expertise, processes, technical information and techniques to help remedial project managers make informed decisions at contaminated Air Force sites. The SME is responsible for overall program guidance, promotion and implementation and supports Air Force and DOD leaders on geology and hydrology matters. The SME also manages the Conceptual Site Model Program and provides leadership for site characterization and development of initial exit strategies. The SME oversees field activities and background studies for metals and emerging contaminants, and provides services for fate and transport, reviews and project validation. The SME mentors, trains and guides Air Force project managers and asset management environmental professionals, and advises the CE career field program on education, recruitment, retention and professional registration opportunities.

Vision: Ensure that asset management divisions have an effective, efficient and reliable resource to provide critical geological and hydrological consultation for an installation's natural infrastructure

Hazardous Materials, Hazardous Waste and Pollution Prevention

Kevin G. Gabos, CIH, AFCEC/CZ

Scope: The Air Force Hazardous Materials Management, Hazardous Waste and Pollution Prevention programs provide the capability to identify, authorize and track the full life cycle of hazardous chemicals across the Air Force to meet regulatory reporting and achieve environmental risk reduction. Hazardous materials and hazardous waste data are used to support compliance with Clean Air Act and Resource Conservation and Recovery Act requirements. The HM program also authorizes and tracks hazardous chemicals to meet executive order requirements for the Emergency Planning and Community Right-to-Know Act. The SME guides the HM program, promotes RCRA compliance excellence, develops implementing criteria/guidance, offers technical consultation/advice and tracks compliance and trends necessary to increase efficiencies and enhance mission capability. The SME also represents the Air Force on industry and DOD and other federal panels, chairs the Air Force Hazardous Material and Hazardous Waste Panel and sponsors and advocates for research and development projects and regulatory/industry partnerships.

Vision: Provide hazardous chemical data supporting the authorization, use, disposal, treatment and reporting for all hazardous chemicals required to meet mission requirements

Installation Planning

Vacant, AFCEC/CP

Scope: The Air Force planning program leverages adaptive reuse, new development and advanced planning concepts to enhance infrastructure performance and capability while maintaining the balance of essential services, reduced resource consumption and livability. The Installation Planning SME manages the installation planning program, which provides Air Force policy, guidance and technical assistance for enterprise and base comprehensive planning. This includes research and technical analysis to provide the tools, expertise, policy and procedures to achieve sustainable and mission-ready installations. The SME also provides technical support to planners and various stakeholders at the DOD, Air Staff, AFIMSC and major command levels; and represents the Air Force with public agencies, industry and base planning stakeholders. The SME develops Air Force policies and guidance to implement federal and DOD regulations. The planning career field manager and the SME mentor develop training and professional certification opportunities. The SME is extensively involved with AFIMSC transformation and the overall integration of strategic objectives with enterprisewide and base comprehensive planning.

Vision: Guide planning to maintain capabilities and enhance infrastructure through development and resource conservation to achieve the vision for right-sized installations

Life Cycle Cost Engineering

Scott Ward, PE, CCE, AFCEC/CO

Scope: The Life Cycle Cost Engineering SME delivers guidance on detailed cost estimating, economic analysis, life-cycle costing, plant replacement value, area cost factors, requirement and management plans and cost modeling. The program is wide-ranging, covering aspects from military construction project programming and design and construction cost estimating to facility sustainment, restoration and modernization forecasting. The SME researches requirements and develops tools for infrastructure and facility systems; participates in development of non-Air Force (e.g., DOD or commercial) criteria with potential impacts to cost engineering programs; and reviews existing programs for adequate Air Force direction. Additional responsibilities include mission support and effectiveness, the reviews of new regulatory requirements, as well as the latest technological developments. The SME represents the Air Force on the Tri-Service Cost Engineering Committee to develop area cost factors and unit cost guidance. The SME is launching the recently CE Board-approved Cost Estimating Improvement Program, which has new requirements for training and certification in the use of cost-estimating tools.

Vision: Facilitate cost-engineering skill, knowledge, creativity and commitment to promote and leverage current technologies for facility design and sustainment excellence

Mechanical Engineering/HVAC

Thomas A. Adams, AFCEC/CO

Scope: The Mechanical Engineering/HVAC SME is the Air Force point of contact for all technical issues related to facility mechanical systems, including air conditioning, heating, pumping, compressed air and ventilation systems and equipment. The SME crafts/interprets primary design guidance documents such as the Unified Facilities Criteria and provides draft language for Air Force Instructions and other Air Force publications; performs engineering analyses of system performance and uses results to adopt applicable design provisions from industry guidance documents such as ASHRAE and ANSI Standards; builds software analysis tools to assist mechanical engineers in the field; notifies higher headquarters of potential mission impacts due to new/revised regulatory burdens and finds alternatives to mitigate negative effects; provides technical guidance to the field via AFCEC's Reach-Back Center, or through articles in AFCEC publications; performs life cycle cost analyses on new system configurations/products; responds to audits of Air Force mechanical systems and recommends modifications to applicable guidance documents.

Vision: Provide design guidance to ensure life cycle cost-effective facility mechanical systems are installed in all new facilities and major renovations

Life Health Safety Engineering

Raymond N. Hansen, PE, AFCEC/CO

NEW!

Scope: The Life Health Safety Engineering SME serves as the lead consultant for engineering issues and recommends policy, provides guidance and coordinates the exchange of information on all matters related to Life Health Safety engineering management throughout the Air Force. The SME ensures effective programs to support mission continuity and provides operational and maintenance guidance for life, health and safety in the areas of fire protection and facilities, implementation of public laws, child and youth facilities certification and accreditation, and specialized protection and facility systems, including nuclear weapons storage areas, water mist fire suppression systems, electronics facility protection, simulators and training systems, fire protection for special electrical systems and storage batteries, personnel housing, construction safety, fall protection interfaces, carbon monoxide systems, and mass notification systems. The SME is a principal member of the national consensus code and standard-writing committees that prepare the standards for emergency communication systems, Life Safety Code, building code, gaseous fire extinguishing systems and water mist fire extinguishing systems.

Vision: Air Force will lead the nation in criteria in life, health and safety for facilities and personnel

Natural Resources Management

Kevin Porteck, AFCEC/CZ

Scope: The Natural Resources program focuses on developing Integrated Natural Resources Management Plans that support installation mission activities while ensuring compliance with environmental laws. The SME ensures those plans are developed in collaboration with Air Force stakeholders and coordinated with required federal and state agencies to provide an installation landscape best suited to sustain military testing and training activities. The SME tracks legislative and regulatory activity that may affect federal land management, develops and disseminates natural resources management guidance, monitors natural resources compliance for the Air Force and provides technical assistance to the Air Force on all matters related to land management. The SME supports planning, programming, budgeting and execution of natural resources management requirements, to include projects to resolve issues related to endangered species conservation, wildland fire management and protection of sensitive natural resources. The SME also provides oversight and management of revenue-generating programs for forest management, agricultural leasing and installation hunting and fishing programs.

Vision: Air Force installation lands support a resilient natural infrastructure capable of sustaining military mission requirements now and in the future

Operations Maintenance

Bryan Muller, AFCEC/CO

NEW!

Scope: The Operations Maintenance program provides guidance, through standard business processes, governing the full life cycle of effective infrastructure and facility maintenance management from work request receipt, prioritization, shop scheduling and labor reporting, materiel procurement, contracted service delivery and work closeout. The SME interfaces with Real Property and Cost Accounting program managers ensuring work task cost accumulation, capitalization and reimbursable customer cost accounting complies with CFO, FIAR and general accounting practices. The SME provides guidance to the preventive maintenance program and development of Air Force-unique procedure task lists and uses data analysis to share best practices, compare to industry trends and inform sustainment and operations funding. The SME is the operations functional lead to the FMO for NexGen-related IT programs, including application functionality and interface development to other systems using operations data. The SME prepares guidance, training and other official publications and represents the Air Force on committees and technical working groups while staying current on policy and technical developments.

Vision: Enable enterprisewide operations flight maintenance management effectiveness through standardized work requests, work execution, materiel support and contract service delivery

Pavements

Craig Rutland, Ph.D., PE, AFCEC/CO

Scope: The SME delivers guidance on design, construction, evaluation, operation, maintenance, repair and management of pavements by providing design and management aids, such as PCASE and PAVER; centralized contracting for and execution of pavement condition surveys and structural evaluations; consultation on and research of pavement performance issues; training on airfield pavement design and project quality control and assurance; certifying engineers on contingency evaluations; and orchestrating research among numerous labs and agencies to develop materials, equipment, methods and guidance. The SME guides the research, development, testing and evaluation of airfield damage repair solutions, promotes training opportunities and develops standards, criteria and specifications. The SME works closely with the other services, the Federal Aviation Administration, Federal Highway Administration, industry representatives and NATO to develop common standards. The SME chairs the tri-service Pavements Design Working Group and the NATO Airfield Pavement Team and is a member of the Transportation Research Board.

Vision: Facilitate and advance pavement design, construction, evaluation, maintenance, repair and management knowledge to cost-effectively sustain the Air Force missions

Overseas Environmental

Steffanie Metzger, PE, AFCEC/CZ

Scope: The Overseas Environmental program provides guidance and direction for sustaining and promoting sound environmental performance in Air Force operations to meet overseas missions in air, space and cyberspace. The SME provides critical input in the development of DOD and Air Force overseas environmental policy and guides the overseas environmental community to ensure sustained compliance with applicable regulations. With the proponent and overseas points of contact, the SME informs officials of pertinent environmental considerations when authorizing or approving certain major DOD actions that do significant harm to the environment of the global commons, the environment of a foreign nation or a protected global resource. Additionally, the overseas environmental program seeks to manage nonenduring locations in a manner that sustains DOD national defense missions and minimizes environmental risks.

Vision: Sustain and promote sound environmental performance in Air Force operations to meet our overseas missions

Pest Management

Donald A. Tieg, AFCEC/CO

Scope: The Pest Management SME recommends policy, provides guidance and coordinates the exchange of information on all matters related to pest and grounds management throughout the Air Force. The SME ensures that environmentally sound and effective programs are present to prevent pests and disease vectors from adversely affecting operations and that grounds maintenance contract templates and pest management operations meet Air Force standards. The SME provides expert aerial spray consultation for management of disease vectors and pests that damage natural resources. The SME develops aerial spray statements of need for control of disease vectors, invasive pests and weeds that impact health and safety of Air Force personnel. The SME reviews aerial spray contracts for environmental and safety requirements. The SME also interacts with the Bird/Wildlife Aircraft Strike Hazard office on questions related to vegetation, insect and vertebrate pest management on airfields. The SME represents the Air Force on the Armed Forces Pest Management Board.

Vision: Provide superior pest and disease vector management for the Air Force to meet global mission requirements

Project Management

Vacant, AFCEC/CF

NEW!

Scope: The Project Management SME advances Air Force project management through development of improved policies and procedures to optimize and standardize project management practices across the enterprise. The SME works to continually improve Air Force project management by incorporating emerging and industrywide standard practices. The SME is responsible for standardizing work practices; establishing performance metrics; evaluating and implementing, as appropriate, DOD and industry best practices; developing and executing a project management training program; and maintaining the Air Force Design and Construction Project Management Guide. The SME provides a continuous self-audit of internal AFCEC project management, and identifies root causes of any pervasive performance deficiencies across the enterprise in order to develop and implement corrective action plans. The SME develops, maintains and serves as manager of an Air Force Project Management certification program, and partners with the Air Force Civil Engineer Career Program to provide advice on the recruitment and development of project managers.

Vision: Optimize project management through continuous evaluation and improvement of practices and adequate training of Air Force project managers

Real Property/Asset Management

H. LaKenya Sartin, AFCEC/CI

Scope: The Real Estate Transactions program provides a strategically structured approach to acquire, manage and dispose of Air Force real property land, facilities and leases. The SME is the real property focal point, responsible for Air Force-wide accountability and sustainment development, real estate instruction, policy development, governance oversight, training, assessments and utilization criteria development, and overall management of the program to meet Air Force and Department of Defense goals and directives. The SME provides expert consultation and guidance on real property accountability methods and procedures; coordinates policy and procedures with the AF auditor general, DOD inspector general, AF general counsel, General Accounting Office and other entities; prepares congressional testimony for senior AF officials related to real property matters and attends/briefs as circumstances dictate; and represents/leads numerous integrated planning teams, inter-service and interdepartmental committees, task forces and working groups related to real property management, accountability and utilization.

Vision: Maintain mission support while enhancing real property guidance and training to improve accountability and sustainment of real property assets

Ranges

Jon Haliscak, AFCEC/CZ

Scope: The Range Program is divided into two main programs or focus areas: Operational Range Sustainment and the Military Munitions Response Program. Both of these programs are multifaceted; responsibilities include providing tools, resources, expertise, processes, technical information and techniques to achieve the diverse goals of both programs. The Range Program SME is responsible for review and comment on policies and guidance from the offices of the secretary of Defense and the secretary of the Air Force and for providing technical support to air staff, major commands and installations as required. The SME represents the Air Force on various OSD working groups. The SME oversees much of the Operational Range Sustainment Program, including the annual data call from OSD and the Operational Range Assessment Program, and provides input to the Air Force Restoration Program Management Office concerning the munitions response program.

Vision: Facilitate/advance sustainability of all Air Force ranges, supporting warfighter testing and training requirements; make former ranges safe for future use

Remedial Systems

Kent C. Glover, Ph.D., AFCEC/CZ

NEW!

Scope: The SME serves as the Air Force lead technical authority on remedial systems issues. The SME's expertise, knowledge and technical advice are focused on remedy selection, implementation, performance evaluation and optimization within the Environmental Restoration Program. In addition to providing consultant and technology-transfer services to the ERP, the SME develops or recommends criteria, standards and directives to air staff, major commands, installations and contractors. The SME also identifies technology demonstration, validation and development needs of the Air Force civil engineering community relating to environmental remedial systems. The SME represents the Air Force with regard to remedial systems issues on committees and technical forums with other DOD services, federal and state agencies, and industry.

Vision: Minimize the financial liabilities and environmental footprint of the Air Force environmental restoration program through competent technical leadership and guidance

Roofing and Asbestos Abatement

Clayton Deel, PE, AFCEC/CO

Scope: The SME delivers guidance on facility roofing systems, facilitating, optimizing and standardizing design, maintenance and inspection practices Air Force wide. The SME manages the Roofing program, develops performance criteria for AF facility roofs, offers technical consultation and represents the Air Force on tri-service design working groups. The SME is charged with maintaining technical requirements for facility systems components. Included are built-up, modified bitumen, single-ply, metal, protected membranes, vegetative green, shingle, metal and tile roofing systems. The SME develops and maintains information and guidance on roof system selection criteria, energy conservation, preferred construction, contracting and inspection, establishing basewide roofing maintenance programs. For asbestos abatement, the SME delivers guidance on installation management of asbestos containing materials, including compliance with policy. The SME also consults with other Air Force disciplines that may be impacted by historical presence of asbestos-containing materials in older facilities, to minimize risk of exposure and liability as such facilities reach their end of service Life.

Vision: Optimize Air Force roof costs to effectively protect assets and minimize risks to mission

Toxicology and Risk Management

Samuel L. Brock, DVM, MPH, AFCEC/CZ

Scope: The Toxicology and Risk Assessment Program provides guidance and consultation and supports technical contract oversight to achieve excellence in environmental risk assessment. The program focuses on providing tools, processes, techniques, technical information resources and training. The SME is responsible for program guidance, outreach and enactment, and supports planning, implementation and policy development. Risk management initiatives develop guidance on long-term management of complex sites focused on achieving the Air Force's environmental program objectives and to inform acquisition strategy for high-cost, high-risk sites. The SME serves as AFCEC's technical authority for toxicology and risk assessment practitioners; supports the environmental restoration program review of risk assessments and emerging contaminants; supports Air Force and DOD leaders on toxicology and risk assessment matters; coordinates with the career field manager on recruiting, mentoring, training and retaining staff; providing professional registration opportunities; and represents the Air Force on tri-service and interagency workgroups.

Vision: Implement defensible exposure assessments and toxicity values supporting restoration management and optimize environmental remediation

Sustainable Design and Development

Paula Shaw, PE, LEED AP, AFCEC/CF

NEW!

Scope: The Sustainable Design and Development SME is the Air Force lead in defining and conceiving programs and projects to advance the state of the art in sustainable technologies and methodologies. The SME provides professional consulting services on siting, designing, constructing, maintaining, operating, re-using and demolishing facilities in a sustainable manner. These services include coordination with engineers and architects during all phases of the project delivery process to ensure compliance with federal, Department of Defense and Air Force sustainability mandates, policy and goals. The SME reviews and comments on new regulatory requirements and keeps abreast of the latest technologies. This allows the SME to have an active role in refreshing, shaping and implementing DOD and AF policy, initiatives and guidance. Additionally, the SME provides gap analyses to guide investment and participation in demonstration, validation and technology transfer of emerging and off-the-shelf sustainability solutions to ensure current and future mission needs are met. Educational activities include developing programs, directives, instructions, lessons, articles and other publications.

Vision: Reduce resources consumed by Air Force buildings, reduce waste generated by them and maximize the benefits buildings provide

Utility Rate Management

Nancy M. Coleal, PE, AFCEC/CN

NEW!

Scope: The Utility Rate Management SME is an engineering professional providing expert guidance to installations worldwide on utility rate issues and specialized contract acquisition for electric, natural gas, water and wastewater. The Utility Rate Management team negotiates on behalf of the Air Force contracting officer and civil engineer customer to help installations procure utility service at a fair price with reasonable terms and conditions. The SME is the principal Air Force liaison to the federal power authorities (Western Area Power Administration, Southwestern Power Administration and Bonneville Power Administration), saving over \$25M/year managing federal preference hydropower allocations. The team analyzes utility bills to validate appropriate rates according to contract terms and represents installations during discussions with utility companies and state regulatory bodies to identify savings opportunities.

Vision: Identify solutions to planning, engineering and economic problems that affect the acquisition and management of utility services in order to obtain quality, reliable utility service with fair, reasonable and nondiscriminatory rates consistent with mission requirements, resulting in the lowest total cost to the Air Force

Water Quality

Kevin Leachman, PE, AFCEC/CZ

Scope: The water quality program comprises a wide range of technical development, consultation and problem resolution responsibilities for drinking water, wastewater and storm-water compliance programs and projects. The water quality SME serves as the lead Air Force expert who identifies, develops, manages, reviews and advocates research and development within the program. The SME demonstrates knowledge, skill and application of engineering and water quality technologies, either in-house or contractual. The SME works with internal and external customer organizations to develop strategic initiatives to assure regulatory compliance, technical sufficiency and clarity of the Air Force's water quality program. The SME represents the Air Force with other Department of Defense, regulatory agency and industry experts to establish joint technical guidance. The SME works with the career field manager to identify training requirements for all Air Force water quality technical experts and assists in the development and maintenance of a career advancement path within the water quality arena.

Vision: To advance Air Force water quality and asset management effectiveness through engineering knowledge, skill, innovation and proactive strategic operational leadership

Water/Wastewater

John D. Bishop, PE, AFCEC/CO

Scope: The Water and Wastewater SME provides oversight, consultation and guidance on the water and wastewater system's life cycle to manage and operate these systems efficiently and effectively. The SME develops design criteria; oversees the application of Department of Defense, Air Force and industry standards and criteria; provides engineering technical consultation; and represents the Air Force on water and wastewater issues. The SME coordinates with the career field manager on mentoring, training and education of Air Force water and wastewater engineers and water and plumbing shop personnel. The SME is a member of the Unified Facilities Criteria Civil Discipline Working Group, the Water Environment Federation and American Water Works Association.

Vision: Ensure water and wastewater systems are maintained throughout the Air Force enterprise and provide expertise to meet industry standards to support mission requirements