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SECRETARY OF THE AIR FORCE**

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***Special Management***

**ENCROACHMENT MANAGEMENT**



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This Instruction implements Air Force Policy Directive (AFPD) 90-20, *Encroachment Management Program*. This Instruction complements Air Force Instruction (AFI) 11-230, *Instrument Procedures*, AFI 13-201, *Airspace Management*; AFI 13-212, *Range Planning and Operations*; AFI 32-7062, *Air Force Comprehensive Planning*; AFI 32-7063, *Air Installation Compatible Use Zone Program*; AFI-32-7064, *Integrated Natural Resources Management*; AFI 32-7065, *Cultural Resources Management Program*; AFI 32-10112, *Installation Geospatial Information and Services (Installation GI&S)*; AFI 33-580, *Spectrum Management*; AFI 35-101, *Public Affairs Responsibilities and Management*; and AFI 51-301, *Civil Litigation*. This Instruction provides guidance and procedures for the planning, operations, management, safety, and security of Air Force installations, ranges, and associated complexes. This Instruction applies to all Air Force installations, except Air National Guard (ANG) units at public use airports and individual ANG installations, located in the United States and its territories and possessions, including government-owned, contractor-operated facilities. This Instruction does not apply to contingency locations. Encroachment management at installations located outside the United States, its territories, and possessions will vary by installation and host nation; because of this, at installations located outside the United States and its territories and possessions, implement this Instruction consistent with applicable international agreements, including status of forces agreements and other government-to-government agreements, Combatant Command (COCOM) policy, Lead Environmental Component (LEC) directives, and local attitudes toward the presence of US military personnel. Courses of action available to Major Command (MAJCOM) and Installation Encroachment Management Team (IEMT) personnel will be informed by these agreements and policies. This Instruction may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility (OPR) for coordination prior to certification and approval. Refer recommended

changes and questions about this publication to the OPR using Air Force Form 847, *Recommendation for Change of Publication*; route Air Force Form 847s from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). When a requirement is mandated for compliance at the wing/unit level throughout this Instruction, the requirement is tiered, signifying the appropriate waiver authority to the requirement and is indicated in parentheses (T-0, T-1, T-2, or T-3) following the sentence or paragraph that drives the requirement, IAW AFI 33-360, *Publications and Forms Management*. See AFI 33-360, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items.

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## Chapter 1

### INTRODUCTION

**1.1. Background.** The Air Force Encroachment Management (AFEM) Program addresses encroachment and sustainment challenges that have the potential to affect both the Air Force mission and the quality of life in surrounding communities. It is a cross-functional program that integrates Air Force efforts to sustain operations by preventing or reducing the impacts of encroachment on Air Force facilities and missions. This Instruction defines encroachment management responsibilities at the Headquarters United States Air Force (HAF), MAJCOM, Direct Reporting Unit (DRU), Field Operating Agency (FOA), and installation levels; these responsibilities, which leverage existing foundational programs and resources, include the designation of encroachment management teams and the development of Installation Complex Encroachment Management Action Plans (ICEMAPs).

**1.2. Foundational Programs.** The AFEM Program goals, objectives, and compliance requirements will be accomplished through the effective implementation of foundational programs. The purpose of the AFEM Program is to leverage these programs to manage encroachment through existing forums, rather than creating new or additional duties. In order to protect the ability of the Air Force to execute its mission, while complying with state and federal regulations and protecting the public's health, safety, and welfare, the installation-level encroachment management program builds on and integrates existing foundational programs, which may include, but are not limited to: Comprehensive Planning programs including the Air Installation Compatible Use Zone (AICUZ) Program, the Installation Development Plan (IDP), and the Joint Land Use Study (JLUS) Program; Airspace Management programs including the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) Program, the Airfield Operations Compliance Inspection (AOCI), and the Mission Compatibility Evaluation Process for renewable and other energy projects; Environmental Programs including Natural Resources Management, Cultural Resources Management, and the Air Quality Compliance and Resource Management Program; Range Management programs including Comprehensive Range Plans; Antiterrorism (AT) Programs, including Installation Vulnerability Assessments; and Communications Programs including the Air Force Spectrum Interference Resolution (AFSIR) Program. These foundational programs, and others, are the core of encroachment management. Through these programs, and the greater situational awareness of encroachment developed through implementation of the AFEM framework (see Section 1.4), the Air Force will be able to anticipate, prevent, and reduce the majority of encroachment and sustainment challenges affecting missions and communities.

1.2.1. The AFEM Program leverages existing foundational programs to create comprehensive encroachment Management Actions. While this Instruction does not establish new billets or Unit Manning Documents for the Executive Director of the IEMT (see Section 2.29.2), it does provide new structure and support to the personnel responsible for encroachment management programs at all levels of the Air Force.

1.2.2. AICUZ Program. The Air Force AICUZ Program, where applicable, works to prevent incompatible development around military air installations by promoting compatible land use practices. AICUZ Program objectives include protecting the public health, safety, and

welfare from the impacts of Air Force activities within the AICUZ area of influence (i.e., zones) and protecting Air Force operations from the impacts of incompatible development. Since the mid-1970s, the AICUZ Program has been the Air Force's primary encroachment management program. The concept of collaboratively working with local governments to achieve mission compatible land development and engaging with local civic, real estate, and development groups is critical to encroachment management strategies. The AICUZ Program remains one of the primary foundational programs for the AFEM Program.

**1.3. A Systems Approach to Encroachment Management.** The Air Force is using a systems approach to manage encroachment and sustainment challenges, which are defined in Attachment 2. Each Air Force installation is a system comprised of smaller system components (e.g., airfield, transportation, and utility systems). Other associated systems also exist outside the fenceline that are critical to successful execution of the installation mission; these include airspace, ranges, and other geographically separate facilities and sites (e.g., missile fields, radar relays, and drop zones). Together, these assets comprise the larger system called the Installation Complex (IC). Each component of the IC is essential to accomplish the mission; a threat to any one component is a threat to the integrity of the whole system. Additionally, units at one location may routinely require the use of facilities, ranges, and airspace that are associated with another installation, or even another Service. These other routinely used assets are called the Mission Footprint (MF). The combined IC/MF defines the geographic area that must be monitored for encroachment. The Installation Complex may be defined differently for overseas installations, based on bi-lateral agreements. Installations should contact their MAJCOM Encroachment Management Team (EMT) Chair for more information if needed.

1.3.1. The IC/MF must function within the larger regional system, which includes other military installations, other federal lands, and state and private lands. This systems approach expands upon the traditional, installation-centric focus to encroachment management and requires installation commanders to address encroachment and sustainment challenges across the system, while engaging other commanders who manage lands, facilities, airspace, and ranges that provide direct mission support to the installation. It is essential for Air Force installations to be aware of the users, owners, and operators of IC/MF system components to promote situational awareness and facilitate communication when conditions change.

**1.4. AFEM Framework.** A framework that cuts across organizational boundaries allows for a cross-functional, integrated approach to encroachment management. The AFEM Framework (Figure 1.1) consists of the following four elements (see Chapter 3 for details on each element):

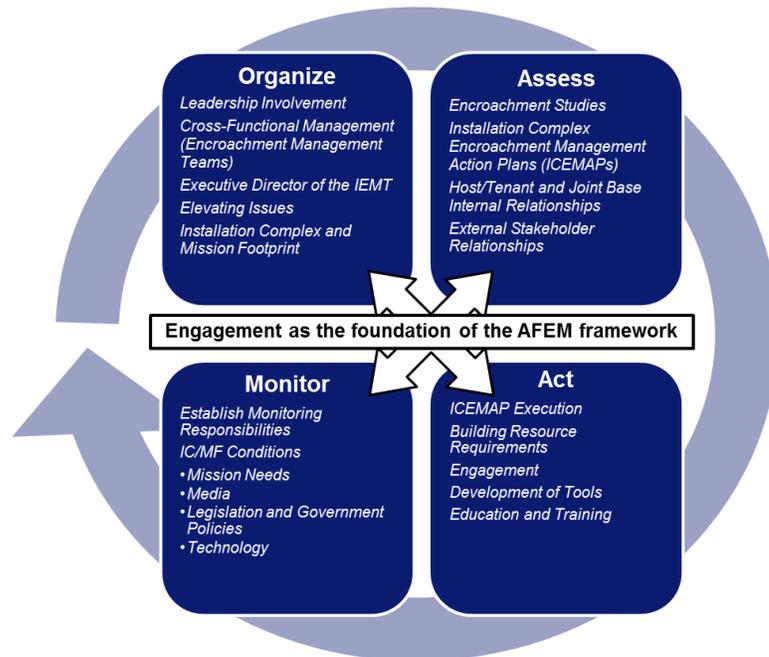
1.4.1. Organize: creates the structure and scope for the AFEM Program at all Air Force echelons.

1.4.2. Assess: develops and maintains enterprise-wide knowledge of the 13 encroachment and sustainment challenge areas (see Attachment 2).

1.4.3. Act: implements encroachment Management Actions and strategies to achieve appointed goals.

1.4.4. Monitor: provides continuous situational awareness of encroachment and sustainment challenges.

Figure 1.1. AFEM Framework.



**1.5. Engagement within AFEM.** Successful encroachment management requires all echelons of the Air Force to engage, build relationships, and work collaboratively with communities, regions, states, non-governmental organizations (NGOs), federal agencies, and individual land owners to ensure enduring mission capability that also supports community sustainability. Proactive outreach and engagement are required to maintain situational awareness of the IC/MF area. Engagement with stakeholders, both internal and external to the IC/MF, is the foundation upon which the AFEM Framework functions. At overseas installations, implement this paragraph with applicable international agreements, COCOM policy, and LEC directives.

**1.6. Waivers.** Waivers to this Instruction are authorized and shall be processed IAW AFI 33-360. Waiver authority for this Instruction is delegated to SAF/IEI for compliance items above the unit level. For unit-level compliance items, waivers may be approved by the appropriate Tier waiver approval authority. At the unit level, the IEMT Executive Director should monitor implementation of this Instruction and review authorized waivers anytime the circumstances that prompted the waiver or the impacts of the excepted activity change substantially.

1.6.1. Waiver requests. The content of a waiver request must include details specific in AFI 33-360, paragraph 1.9.5.2. Additional content is at the discretion of the waiver authority. For waiver requests needing publication OPR/Approver concurrence or approval (SAF/IEI or higher), the waiver request must also include the following:

1.6.1.1. Installation name, location, and a point-of-contact.

1.6.1.2. Reference and text of the specific requirement for which the commander/director is requesting a waiver.

1.6.1.3. Description of the conditions at issue to include:

1.6.1.3.1. Potential alternatives and their impact on test and training operations, maintenance, cost, and other factors deemed appropriate by the requesting agency.

- 1.6.1.3.2. Proposed actions and procedures to mitigate safety or other issues of concern.
- 1.6.1.3.3. Risk Management Analysis, as appropriate.
- 1.6.1.3.4. Supporting maps, charts, graphics, or other illustrations as appropriate.
- 1.6.1.4. For waiver requests, include a detailed plan to alleviate the condition.
- 1.6.1.5. Previously granted exemption or waiver.
- 1.6.2. Tier 0 and Tier 1 Waiver Coordination and Approval. IEMT Executive Directors will submit requests to the appropriate MAJCOM. The MAJCOM must submit the waiver request to SAF/IEI.

## Chapter 2

### ROLES AND RESPONSIBILITIES

#### **2.1. The Assistant Secretary of the Air Force for Installations, Environment and Logistics (SAF/IE) shall:**

- 2.1.1. Serve as the OPR for the AFEM Program, IAW AFPD 90-20.
- 2.1.2. Advocate within the Air Force Corporate Structure (AFCS) for encroachment management resources.
- 2.1.3. Engage the US State Department on encroachment prevention text for international agreements inclusive of US airfield and airspace operations.

#### **2.2. The Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health (SAF/IEE) shall:**

- 2.2.1. Evaluate, report, and disseminate information to HAF, MAJCOMs, DRUs, the Air Force Civil Engineer Center (AFCEC), and installations, as appropriate, on state environmental legislation and state, regional, and federal regulations related to encroachment. Ensure relevant state legislature members and committees are aware of encroachment and sustainment challenges in their areas of interest.
- 2.2.2. Coordinate, and inform SAF/IEI, with other component Service regional offices to develop and articulate military positions on encroachment issues and ensure Air Force requirements are addressed pursuant to the Department of Defense (DOD) Regional Environmental Coordinator (REC) Program.
- 2.2.3. Ensure the SAF/IEE Regional Environmental Offices (REOs) engage with state executive and legislative branches, multi-state partnerships, and other federal agencies in support of the AFEM Program. SAF/IEE REOs shall:
  - 2.2.3.1. Communicate with and support, as needed, HAF, National Guard Bureau (NGB), MAJCOMs, DRUs, AFCEC, and installations in their respective regions to share regional issues and obtain information on IC/MF or MAJCOM encroachment and sustainment challenges.
  - 2.2.3.2. Support relationships with state legislative bodies, state and regional federal regulatory agencies, and state land use planning agencies that potentially engage in projects or programs affecting Air Force missions; engage with these policy makers on encroachment-related measures and advocate for Air Force and military interests.
  - 2.2.3.3. Solicit HAF, NGB, MAJCOM, DRU, and installation comments on proposed legislation related to encroachment and, when necessary, work with the Air Force Legal Operations Agency (AFLOA) Regional Counsel to draft official Air Force positions in coordination with HAF.
  - 2.2.3.4. Within their designated regions, engage and develop partnerships with key stakeholders on environmental, social, economic, governmental, and administrative matters with potential encroachment management impacts. Leverage partnerships to assist ICEMAP teams to coordinate interviews with state and federal environmental

regulators as part of the encroachment study process, and participate as appropriate. Assist ICEMAP teams to coordinate interviews with state and federal agencies on related programs and policies that can affect the IC/MF.

2.2.3.5. Maintain contact and coordinate with other Services within their respective regions to exchange information and help represent Air Force and DOD encroachment policy on a multi-Service basis.

2.2.3.6. Assist installations with maintaining the currency of internal and external ICEMAPs with regard to regional, state, and federal contexts.

2.2.3.7. Participate as members of MAJCOM EMTs or IEMTs, as requested.

2.2.3.8. Provide support for inter-Service coordination with other DOD Services engaged in encroachment management. The AFCEC shall support SAF/IEE REOs in the administration of DOD REC functions, relative to encroachment management, as requested.

**2.3. The Deputy Assistant Secretary of the Air Force for Installations (SAF/IEI) shall:**

2.3.1. Chair the Encroachment Management Working Group (EMWG) as the SAF/IE organization with principal oversight of the AFEM Program.

2.3.2. Lead SAF/IE advocacy within the AFCS for encroachment management resources.

2.3.3. Review all draft external ICEMAPs for consistency with policy and guidance.

**2.4. The Deputy Assistant Secretary of the Air Force for Energy (SAF/IEN) shall:** serve as the expert on Air Force and the Office of the Secretary of Defense (OSD) energy goals related to encroachment management.

**2.5. The Office of the Deputy General Counsel of the Air Force for Installations, Energy and Environment (SAF/GCN) shall:** provide legal counsel and oversight for the encroachment management policies and procedures outlined in this Instruction and consult with the Office of the Deputy General Counsel for Intelligence, International and Military Affairs (SAF/GCI) on matters involving overseas installations.

**2.6. The Assistant Secretary of the Air Force for Financial Management (SAF/FM) shall:** identify and disseminate pertinent information on federal legislation related to encroachment management including legislation for other federal agencies, per AFI 90-401, *Air Force Relations with Congress*. SAF/FM shall maintain primary authority and responsibility for relations with the Appropriations and Budget Committees and the Congressional Budget Office (CBO).

**2.7. The Director, Legislative Liaison, Office of the Secretary of the Air Force (SAF/LL) shall:** maintain primary authority and responsibility (except for Appropriations Committees, Budget Committees, and the CBO) for relations with Congress, the Executive Office of the President and Vice President, OSD, and other governmental agencies for matters related to encroachment management legislation, per AFI 90-401.

**2.8. The Director, Public Affairs, Office of the Secretary of the Air Force (SAF/PA) shall:**

2.8.1. Assist the EMWG in developing Air Force messaging for the AFEM Program and support media activities related to encroachment management.

2.8.2. Develop field guidance regarding the role of the Public Affairs (PA) office in the AFEM Program. Assist the REOs, MAJCOM EMTs, IEMTs, AICUZ program managers, and others, as necessary, with messaging, risk communication, and identification of issues of public concern related to encroachment.

2.8.3. Ensure encroachment related PA considerations are included in PA career field education and training plans and advocate for encroachment management principles in Defense Information School course curricula.

2.8.4. NGB, Office of Public Affairs (NGB-PA), will coordinate with SAF/PA, but will assume the responsibilities of SAF/PA for actions involving the NGB, Air Directorate.

**2.9. The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) shall:**

2.9.1. Ensure Air Force publications written within his/her area of responsibility are consistent with Air Force encroachment management policy.

2.9.2. Provide overall management of Air Force acquisition consistent with encroachment management policy including considering the impacts of new weapons systems acquisitions on communities.

2.9.3. Support Core Function Lead Integrators (CFLIs) in identifying research requirements with regard to possible encroachment and sustainment challenges for inclusion in Core Function Master Plans and Science and Technology Annexes.

2.9.4. Provide input to SAF/IE on mission requirements as required to support Air Force encroachment management and compatible development programs related to Research and Development (R&D) activities conducted within the IC/MF.

**2.10. The Chief of Information Dominance and Chief Information Officer (SAF/CIO A6) shall:**

2.10.1. Develop Air Force procedures for managing Electromagnetic (EM) Spectrum and Line-of-Sight encroachment and sustainment challenges.

2.10.2. Serve as the Service resource advocate for encroachment management R&D projects that affect EM spectrum activities, including research into potential encroachment and sustainment challenges that may arise.

2.10.3. Incorporate encroachment management into EM spectrum education and training course curricula.

**2.11. The Director, Security, Counterintelligence and Special Program Oversight (SAF/AAZ) shall:** review any internal encroachment study relative to Special Access Programs (SAP). SAF/AAZ administers oversight and implementation of Air Force SAP security per AFI 16-701, *Management, Administration and Oversight of Special Access Programs*.

**2.12. The National Guard Bureau (NGB/ZA) shall:**

2.12.1. Communicate directly with the Secretary of Defense, the Secretary of the Air Force (SECAF), and SECAF functionals with regard to ANG missions residing on Air Force installations and resourcing issues related to encroachment management, through the Chief of the NGB.

2.12.2. Represent the ANG to the HAF staffs, listed below, at the Air Force Council level on host-tenant encroachment management issues, through the Director of the Air National Guard.

2.12.3. Oversee inter-directorate coordination on encroachment management issues between the NGB and HAF staffs, listed below, through the Commander of the Air National Guard Readiness Center.

2.12.4. Receive legal advice on ANG encroachment management program matters from NGB-JA, which serves as the functional expert in this area.

2.12.5. Develop guidance for ANG units not covered by this AFI on elevating encroachment challenges that impact ANG operations to the HAF EMWG, consistent with Section 3.3.4.

**2.13. The Deputy Chief of Staff, Manpower, Personnel and Services (AF/A1) shall:**

2.13.1. Support and implement manpower requirements associated with the AFEM Program.

2.13.2. Identify and distribute manpower, personnel, and services education and training requirements related to encroachment management.

**2.14. The Deputy Chief of Staff for Operations (AF/A3O) shall:**

2.14.1. Integrate encroachment management into Air Force airfield, operational range, airspace, and weather operations policies.

2.14.2. Designate an individual, at the Division Chief level or above, to serve as one of two Vice Chairs of the EMWG.

2.14.3. Establish requirements, policies, and procedures for plans, studies, and programs which have encroachment components (e.g., Comprehensive Range Plans) in AFI 13-201 and AFI 13-212.

2.14.4. Analyze potential encroachment impacts on Air Force military operations, with particular focus on the mission compatibility of energy development projects.

2.14.5. Designate A3O-B as the representative to integrate encroachment management topics, as appropriate, into national and regional airspace and range meetings.

2.14.6. Identify the need for information technology and other resources and tools necessary to address encroachment impacts on airspace and range activities.

2.14.7. Incorporate encroachment management into basic OE/AAA (Federal Aviation Administration (FAA) course 12051) airspace, Terminal Instrument Procedures (TERPS), range, and weather education and training course curricula.

2.14.8. Review all draft external ICEMAPs for consistency with relevant policy and guidance.

**2.15. The Air Force Civil Engineer (AF/A7C) shall:**

2.15.1. Ensure the Comprehensive Planning, AICUZ, Environmental Quality, installation, and facility management programs, and others, as necessary, are executed consistently with AFEM policy and guidance.

2.15.2. Designate an individual, at the Division Chief level or above, to serve as one of two Vice Chairs of the EMWG.

2.15.3. Advocate for, and resource the preparation and implementation of, encroachment related plans, studies, and programs under the Civil Engineer responsibility, including AICUZ, Integrated Natural Resources Management Plan (INRMP), Integrated Cultural Resources Management Plan (ICRMP), IDP, and the Air Quality Compliance and Resource Management Program, as identified in the ICEMAP.

2.15.4. Determine resources and tools necessary for identifying potential encroachment and sustainment challenges, as well as tracking the status of encroachment studies and execution of encroachment management projects.

2.15.5. Define the need for MAJCOM, DRU, FOA, and installation encroachment management geospatial requirements and responsibilities.

2.15.6. Support the OSD Office of Economic Adjustment (OEA) Compatible Use program through nomination of installations, ranges, or installation complexes, as appropriate, for the JLUS Program.

2.15.7. Incorporate encroachment management into Civil Engineer education and training course curricula.

2.15.8. Review all draft external ICEMAPs for consistency with relevant policy and guidance.

**2.16. The Air Force Director of Security Forces (AF/A7S) shall:**

2.16.1. Evaluate the potential impacts of encroachment and sustainment challenges on Force Protection mission and security forces requirements, including, but not limited to, Protection Level asset clear zones, AT standoff distances, small arms ranges, and security forces training facilities. Provide guidance on these impacts to MAJCOMs, DRUs, and installations.

2.16.2. Ensure encroachment management responsibilities associated with mutual aid agreements are coordinated, as required, with local law enforcement and homeland defense agencies and, for overseas locations, consult applicable international agreements prior to engaging with host nation counterparts.

2.16.3. Incorporate encroachment management into security forces education and training course curricula.

**2.17. The Deputy Chief of Staff, Strategic Plans and Programs (AF/A8) shall:** ensure encroachment and sustainment challenges and operational sustainability considerations are incorporated, to the extent possible, from the outset of the Air Force strategic basing process.

**2.18. The Assistant Chief of Staff, Strategic Deterrence & Nuclear Integration (AF/A10) shall:** evaluate the potential impacts of encroachment and sustainment challenges on nuclear mission requirements and provide guidance to MAJCOMs, as appropriate.

**2.19. The Air Force Chief of Safety (AF/SE) shall:**

2.19.1. Provide oversight and integration of existing safety programs, such as the Air Force Bird/Wildlife Aircraft Strike Hazard (BASH) program, the Mid-Air Collision Avoidance (MACA) program, and weapons safety, with the AICUZ program and encroachment study process.

2.19.2. Coordinate with the Air Force Safety Center (AFSEC) to identify safety-related encroachment and sustainment challenges and conduct relevant encroachment management activities.

2.19.3. Incorporate encroachment management into safety education and training course curricula.

**2.20. The Chief Scientist of the Air Force (AF/ST) shall:** analyze and advise Air Force senior leadership on technical or scientific solutions related to encroachment and sustainment challenges and operational sustainability issues.

**2.21. The Surgeon General of the Air Force (AF/SG) shall:** serve as the functional expert for encroachment impacts on health and wellness.

**2.22. The Director of Test and Evaluation (AF/TE) shall:**

2.22.1. Identify potential encroachment impacts and provide mission impact assessments for Air Force Major Range Test Facility Base (MRTFB) activities.

2.22.2. Identify R&D opportunities to identify, prevent, and reduce encroachment and sustainment challenges related to Test and Evaluation operations.

**2.23. The AFCEC, Chief of the Comprehensive Planning Division (AFCEC/CPD) shall:**

2.23.1. Develop encroachment expertise and provide reachback support to cross-functional teams (EMWG, MAJCOM/DRU EMTs, and IEMTs) regarding encroachment management on topics such as, but not limited to, compatible land use, environmental regulatory constraints, and the availability of natural infrastructure within Air Force IC/MFs (T-3).

2.23.2. Provide technical assistance and data analysis related to encroachment management for AF/A7C, NGB, MAJCOMs, DRUs, and installations, as requested (T-3).

2.23.3. Provide support for the maintenance of databases, analyses, and profiles on encroachment conditions within IC/MFs based upon ICEMAPs, encroachment studies, and other foundational program documents, processes, and plans (T-3).

2.23.4. Provide support to installations in the preparation of encroachment studies and in maintaining and updating ICEMAPs, as appropriate and in coordination with MAJCOMs (T-3).

2.23.5. Develop tools and guidance to support engagement with federal agencies regarding policies, plans, legislation, and related actions and their potential impact on Air Force missions and communities. Provide support to SAF/IEE REOs, when engaging with state legislatures and state and federal agencies, on policy issues related to encroachment management (T-3).

2.23.6. Monitor, in coordination with SAF/IEE REOs, the activities, plans, programs, and projects of state legislatures and state and federal regional agencies that potentially affect Air Force operations and encroachment management efforts (T-3).

2.23.7. Monitor regional (e.g., multi-state, geographic, or functional regions, as appropriate) development trends with the potential to affect encroachment management efforts (T-3).

2.23.8. Participate as a member of MAJCOM EMTs and IEMTs, as requested (T-3).

2.23.9. Assist SAF/IEE REOs to maintain relationships with key stakeholders on social, economic, planning, and administrative matters with potential encroachment management impacts, such as participation in technical study committees, preparation of analyses, and delivery of presentations in support of encroachment studies and proactive engagement (T-3).

2.23.10. Provide support for analysis of legislative proposals related to encroachment on Air Force missions. Coordinate with MAJCOMs and installations on studying potential encroachment impacts resulting from proposed state legislation or regulations (T-3).

2.23.11. Execute prioritized ICEMAPs and other encroachment-related studies identified within the real property Asset Management Plan (AMP), Base Comprehensive Asset Management Plans (BCAMPs), and MAJCOM Comprehensive Asset Management Plans (MCAMPs) (T-3).

2.23.12. Facilitate information sharing and coordination among EMTs and IEMTs, on encroachment management activities and strategies on common issues within states and regions (T-3).

2.23.13. Provide training support related to encroachment management for AF/A7C, NGB, MAJCOMs, DRUs, and installations, as requested (T-3).

**2.24. The Air Force Legal Operations Agency, Environmental Law and Litigation Division (AFLOA/JACE) shall:**

2.24.1. Serve as the functional expert on legal aspects of the AFEM Program, including providing legal opinions and advice on encroachment management to all levels of the Air Force (T-3).

2.24.2. Provide litigation support and advice related to encroachment management, including matters such as administrative hearings and annexation proposals (T-3).

2.24.3. Through the AFLOA Regional Counsel, provide legal advice on region-specific matters relating to encroachment management, including such matters as regional, state, and local legislation and rule-making. This includes supporting engagement with governing bodies, as well as obtaining approval for Air Force personnel to testify or make official statements at such forums. Specifically, Regional Counsel coordinate with SAF/IEE REOs, DOD RECs, and affected installations to address encroachment and sustainment challenges identified in ICEMAPs or other approved sustainment programs, such as AICUZ, in the development of proposed state legislation. Regional Counsel may also support actions affecting multiple installations from different Services or MAJCOMs (T-3).

2.24.4. Provide training support and guidance materials related to encroachment management to members of all legal offices and, when requested, to other functional offices as part of integrated training efforts (T-3).

**2.25. The Air Force Flight Standards Agency (AFFSA) shall:**

2.25.1. Serve as the functional expert for encroachment impacts on flight operation standards, airfield and air traffic control, TERPS requirements, and air traffic systems, and integrate airfield encroachment and sustainment challenges into the Unit Effectiveness Inspection (T-3).

2.25.2. Coordinate with MAJCOM standard mission impact statements to support a consistent response to encroachment and sustainment challenges by identifying constraints to airfield flight operations (T-3).

**2.26. The Air Force Weather Agency (AFWA) shall:**

2.26.1. Serve as the functional representative for encroachment impacts from energy projects on weather radar (T-3).

2.26.2. Work cooperatively with the National Oceanic Atmospheric Administration National Weather Service (NWS) Radar Operations Center (ROC) to evaluate potential impacts of energy projects on NEXRAD Weather Surveillance Radar-1988 Doppler (WSR-88D) radars used to support US Air Force and Army installations and missions (T-3).

2.26.3. Notify affected MAJCOM weather functionals and EMTs when the NWS ROC indicates ongoing or proposed construction of energy projects that potentially affect WSR-88D capabilities crucial to weather support for US Air Force and Army installations and missions. When appropriate, notify SAF/IEN or the DOD Siting Clearinghouse to promote situational awareness (T-3).

**2.27. The Air Force Spectrum Management Office (AFSMO) shall:**

2.27.1. Serve as the functional expert on encroachment and sustainment challenges related, but not limited to, EM spectrum management, frequency and spectrum assignments, and system certification (T-3).

2.27.2. Develop guidance for MAJCOMs and installations on encroachment and sustainment challenges related, but not limited, to frequency interference and spectrum access (T-3).

**2.28. Air Force MAJCOMs and DRUs shall:**

2.28.1. Implement the AFEM Program and provide MAJCOM/DRU-specific encroachment management guidance and assistance to installations, when needed. The MAJCOM/DRU Commander exercises overall responsibility for conducting these mission activities; these include encroachment management activities at IC/MFs within the MAJCOM/DRU.

2.28.2. Maintain situational awareness of encroachment across the MAJCOM/DRU enterprise.

2.28.3. Advocate for resources across MAJCOMs to implement AFEM plans and studies. Advocate through the AFCS during Program Objective Memorandum deliberations for resources to support the AFEM Program. Identify Future Years Defense Program (FYDP) investment requirements in the MAJCOM Activity Management Plan (MAMP). Prioritize budget year investment requirements in the MCAMP (T-2).

2.28.4. Review and ensure adequacy of installation-level strategies, studies, and plans, including encroachment studies and ICEMAPs, which respond to current and potential encroachment and sustainment challenges. Monitor completion status of ICEMAPs and annually report ongoing encroachment and sustainment challenges elevated to HAF from IEMTs, as necessary (T-2).

2.28.5. Identify R&D needed to address encroachment and sustainment challenges and advocate for R&D resources through the AFCS, as required (T-2).

- 2.28.6. Provide mission impact analysis for encroachment and sustainment challenges requiring unique MAJCOM involvement, such as energy projects (T-2).
- 2.28.7. As appropriate, work to shape international agreements to gain host nation-endorsed encroachment prevention and reduction of verbiage (T-2).
- 2.28.8. Provide MAJCOM/DRU-specific encroachment management guidance for integration into education and training course curricula (T-2).
- 2.28.9. Review all internal and draft external ICEMAPs within their portfolio for consistency with relevant Air Force and MAJCOM policy and guidance (T-2).
- 2.28.10. Inform HAF when draft external ICEMAPs are available for review (T-2).
- 2.28.11. Annually review the installation-level implementation of ICEMAPs within their portfolio (T-2).
- 2.28.12. The ANG, as co-chair of the regional Airspace and Range Council (ARC), integrates encroachment management topics and addresses regional airspace and range encroachment and sustainment challenges through the ARC and with external stakeholders who attend ARC meetings. Note: This paragraph does not apply to overseas installations (T-2).

**2.29. Installations.** The roles and responsibilities for key installation staff members are listed below. For Air Reserve units located at civil airports, the Air Force will work cooperatively with the airport authority to prevent and reduce encroachment and sustainment challenges. Encroachment management at installations located outside the United States, its territories, and possessions will vary by installation and host nation. Courses of action available to MAJCOM and IEMT personnel will be informed by the content of international agreements, including status of forces agreements and other government-to-government agreements, COCOM policy, and local attitudes toward the presence of US military personnel (T-2).

**2.29.1. Installation Commanders shall:**

- 2.29.1.1. Consider the potential for encroachment and sustainment challenge impacts to all installation programs, and in all plans and decisions on land development and military operations. Installation commanders are responsible for implementing the AFEM Program (including ensuring an encroachment study exists or is ongoing), prioritizing and implementing ICEMAP Management Actions, and negotiating encroachment prevention and reduction into all applicable Installation Commander-level agreements with host nation representatives (T-2).
- 2.29.1.2. Establish an IEMT (T-2).
- 2.29.1.3. Designate an Executive Director of the IEMT for the IC/MF-wide implementation of the AFEM Program. To ensure proper visibility and awareness of encroachment and sustainment challenges for the Executive Director, the installation commander shall not delegate Executive Director responsibilities lower than a Group Commander (Group/CC) level-equivalent. Installation Commanders should consider appointing a civilian Executive Director, to promote consistency across long-term encroachment management efforts (T-2).

2.29.1.4. Ensure that the Executive Director and IEMT membership receive encroachment management education and training, as necessary (T-2).

2.29.1.5. Engage external partners and stakeholders, including, but not limited to, local jurisdictions, state legislatures, corporations, and NGOs, to support MAJCOM and installation mission requirements (T-2).

2.29.1.6. Review host-tenant support agreements annually (T-2).

2.29.1.7. Review and coordinate on proposed or anticipated tenant changes in mission requirements (T-2).

2.29.1.8. Ensure FYDP encroachment management investment requirements are identified clearly in the Base Activity Management Plans (BAMPs). Ensure budget year investment requirements are prioritized in the BCAMP (T-2).

2.29.1.9. Participate in existing state-wide or regional Commanders Councils, when possible. If participating, this responsibility cannot be delegated lower than the Group/CC level (T-2).

2.29.1.10. In coordination with foundational programs, ensure internal installation projects do not create encroachment and sustainment challenges on airfields, airspace, and geometric surfaces without MAJCOM-approved waivers (T-2).

**2.29.2. The Executive Director of the IEMT shall:**

2.29.2.1. Coordinate IC/MF-wide implementation of the AFEM Program and establish lines of communication with MAJCOM EMT members, the IEMT, and tenant chains of command, as necessary (T-2).

2.29.2.2. Leverage the IEMT member expertise and knowledge to implement the AFEM Program. Coordinate IEMT activities, such as routine meetings, encroachment studies, and stakeholder outreach efforts. Participate in IEMT efforts to address identified encroachment and sustainment challenges affecting, or likely to affect, tenant missions (T-2).

2.29.2.3. Actively track and update the most current ICEMAPs via the AFEM SharePoint site and ensure the AFEM SharePoint site for the installation is kept current (T-2).

2.29.2.4. Ensure the IEMT meets on a regular basis, elevating issues as necessary up the chain of command through the EMT structure (See Section 3.3.3) (T-2).

2.29.2.5. Oversee the development and execution of encroachment studies and provide necessary support to the implementation process (T-2).

2.29.2.6. Ensure encroachment related projects are identified and prioritized appropriately (T-2).

2.29.2.7. Leverage existing Air Force foundational programs' internal and external engagement activities. In addition and where necessary, cultivate and maintain effective working relationships with stakeholders and, as required, with representatives of elected and appointed local, state, and federal officials, and with state, regional, and local

agencies to promote awareness of the Air Force's interests in compatible development, mission sustainability, and public safety (T-2).

2.29.2.7.1. Develop and maintain a database of stakeholders, with support from AFCEC, as needed (T-2).

2.29.2.7.2. Develop themes and messages, as appropriate and in coordination with installation PA, to be used during engagement with internal and external stakeholders. Obtain input on installation messaging from the MAJCOM EMT and SAF/IEE REOs. Overseas installations should contact the MAJCOM EMT Chair for additional guidance (T-2).

2.29.2.8. Maintain situational awareness of proposed federal and state agency legislation, regulations, plans, and rules contributing to encroachment issues. This includes obtaining approval, when necessary, through the Air Force chain of command, for providing formal comments or statements on state or local legislation, ordinances, or other processes that could affect encroachment management (T-2).

2.29.2.9. As applicable, leverage foundational programs (see Section 1.2) to coordinate and ensure Air Force attendance and participation at appropriate stakeholder meetings and hearings on encroachment and sustainment challenges, which could affect the Air Force's ability to sustain its mission (T-2).

2.29.2.10. Advise and update the installation commander on AFEM Program activities at the installation and represent the installation commander to stakeholders, when necessary (T-2).

2.29.2.11. Review proposed federal, state, or local agency legislation, regulations, guidelines, programs, plans, or other documents pertaining to encroachment, and overseas host nation laws, where applicable (T-2).

2.29.2.11.1. Review requests to use land within the installation (e.g., for a basing action, real estate actions, such as Enhanced Use Leases, or other types of land use by outside entities) and, when necessary, coordinate an appropriate response for encroachment impacts (T-2).

2.29.2.11.2. Support foundational program managers in review of documents, and the development and update of plans related to encroachment management, as appropriate. The Executive Director supports the implementation of the AICUZ Program (T-2).

2.29.2.12. Review the results of media monitoring conducted by installation PA or others (T-2).

2.29.2.13. Coordinate the release (either electronic or hard copy) of the Volume III: Community Brochure with relevant stakeholders, if delivered as part of the external ICEMAP (T-2).

**2.29.3. The Operations Group Commander (OG/CC) shall:**

2.29.3.1. Monitor all installation operational missions within the IC/MF for mission constraints and encroachment impacts and ensure the Mission Support Group

Commander (MSG/CC), Executive Director of IEMT, and all IEMT members are aware of, and finding proactive solutions for, these challenges (T-2).

2.29.3.2. Provide mission requirements and identify current and potential encroachment impacts to the IEMT in order to develop potential mitigation options or prevent potential internal or external encroachments (T-2).

2.29.3.3. Oversee installation inputs to the Mission Compatibility Evaluation Process when formal and informal energy project reviews are tasked to the Air Force by the DOD Siting Clearinghouse as required by 32 C.F.R Part 211 (T-2).

2.29.4. **Installation Public Affairs (PA) shall**, to the extent possible, be aware of and incorporate encroachment and sustainment challenges into media monitoring processes to improve IEMT situational awareness (T-2).

2.29.5. **Installation Office of the Staff Judge Advocate shall** provide legal opinions and advice on installation encroachment management matters, including the applicability of statutory, regulatory, and policy requirements, as well as the legal sufficiency of Air Force documents and statements. The office should consult with AFLOA/JACE to assure consistency and must coordinate through the Regional Counsel to obtain the approval described in Section 2.24 for testimony or official statements (T-2).

2.29.6. **Tenant Commanders, consistent with Service guidance, should:**

2.29.6.1. Participate as members of the IEMT and provide necessary support to the encroachment study and ICEMAP development process (T-2).

2.29.6.2. Review resource requirements (including use of land, air, sea, and EM spectrum) with appropriate commanders and staff to identify associated encroachment and sustainment challenges that have the potential to affect mission activities internal to the IC/MF (T-2).

2.29.6.3. Review potential future mission activities (e.g., basing and employment of new weapons systems and associated tactics, techniques, and procedures) and resource requirements, such as testing or training requirements (including land, air, sea, and EM spectrum), with appropriate commanders and staff on a recurring basis. Identify associated encroachment and sustainment challenges that could affect tenant mission activities (T-2).

2.29.6.4. Ensure encroachment management-related projects are identified and prioritized appropriately (T-2).

2.29.7. **Air Force Supporting Commanders at Joint Bases shall:**

2.29.7.1. Implement the AFEM Program where the Air Force is designated the supporting component. Request participation of Supported Service Commanders, tenants, and other organizations operating on the installation in the AFEM Program and the IEMT (T-2).

2.29.7.2. Provide support, as necessary, to the encroachment study and ICEMAP development processes (T-2).

2.29.7.3. Request that supported commanders and organizations review supporting command resource requirements (including land, air, sea, and EM spectrum) in the

IC/MF to identify mission activities that could be affected by encroachment and sustainment challenges (T-2).

2.29.7.4. Request that supported commanders and organizations identify potential future mission activities (e.g., new weapon systems, training tactics, etc.) and needed resources (including land, air, sea, and EM spectrum) with the IEMT, to the extent possible (T-2).

2.29.7.5. Use the Joint Management Oversight Structure (JMOS) to resolve program discrepancies and disconnects (T-2).

2.29.7.6. Ensure encroachment management-related projects are identified and prioritized appropriately (T-2).

**2.29.8. Supported Air Force Commanders at Joint Bases shall:**

2.29.8.1. Participate in the Supporting Service's encroachment management program at the installation and support the development of a Joint Base encroachment management plan, as necessary (T-2).

2.29.8.2. Identify potential future mission activities (e.g., new weapon systems, training tactics, Remotely Piloted Aircraft, and cyber-intelligence systems) and needed resources (including land, air, sea, and EM spectrum), to the extent possible, and provide that information to the Supporting Service's encroachment management point of contact (T-2).

2.29.8.3. Use the JMOS to resolve program discrepancies and disconnects (T-2).

2.29.8.4. Ensure encroachment management-related projects are identified and prioritized appropriately (T-2).

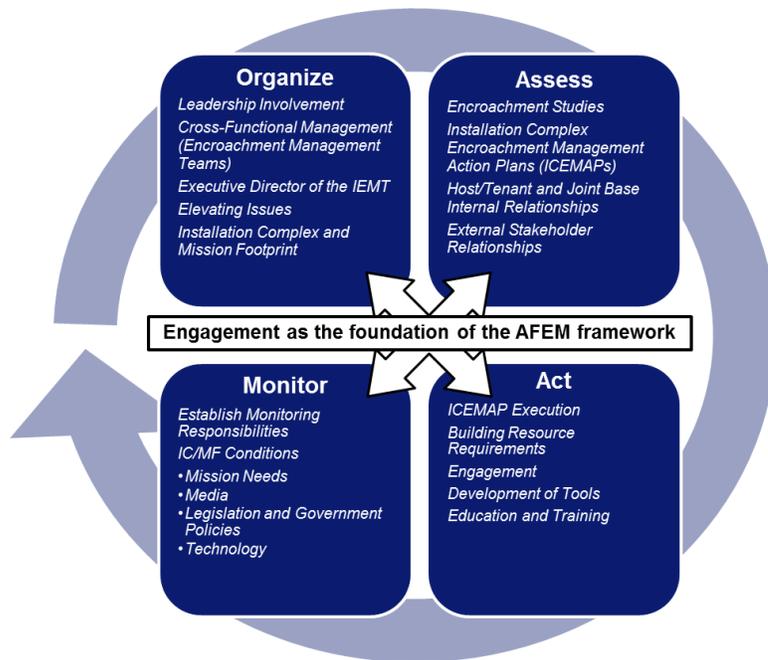
## Chapter 3

### ENCROACHMENT MANAGEMENT FRAMEWORK

**3.1. Introduction.** Because encroachment and sustainment challenges arise from a variety of internal and external sources, proactive engagement, both internally and externally, will help Air Force leadership protect current missions, prepare for future missions, and ensure the sustainability of the IC/MF and surrounding community. To promote successful engagement, the Air Force utilizes a cross-functional AFEM Framework, introduced in Chapter 1, which integrates activities of existing foundational programs into a comprehensive encroachment management strategy. Without this integrating framework, encroachment management becomes disjointed and Air Force installations, and the missions they support, could be compromised. Additional details on encroachment management are provided on the AFEM SharePoint (<https://eis.af.mil/cs/safiei/default.aspx>) or successor site.

**3.2. AFEM Framework.** The four elements in the AFEM Framework (Organize, Assess, Act, and Monitor) introduced in Chapter 1, are further described below.

**Figure 3.1. AFEM Framework.**



**3.3. Organize.** Organizing for successful encroachment management requires strong, sustained leadership involvement, a cross-functional management structure (e.g., EMTs) at all echelons of the Air Force, a designated Executive Director to implement the AFEM Program at the installation level, an issue elevation structure, and a well-defined geographic scope for the program (the IC/MF).

**3.3.1. Leadership Involvement.** Air Force leadership at the HAF, MAJCOM/DRU, FOA, and installation levels must maintain situational awareness of the mission and community

impacts of encroachment in order to provide the necessary proactive and sustained leadership involvement required to combat encroachment and sustainment challenges.

**3.3.2. Cross-Functional Management.** Encroachment issues are addressed by the cross-functional EMWG at HAF and by the EMT structure at MAJCOMs/DRUs and installations.

**3.3.2.1. HAF EMWG.** The HAF EMWG is a cross-functional working group, formally established by SAF/IEI. The EMWG develops and refines proposed courses of action to address encroachment and sustainment challenges and provides recommendations to the Strategic Basing-Executive Steering Group (SB-ESG) for approval or situational awareness, when appropriate.

**3.3.2.1.1. EMWG Membership.** The EMWG includes Air Force leadership at the O-6 level, their civilian equivalents, or their representatives from across HAF. Invitations for others to become members of the EMWG may be extended by the EMWG Chair (SAF/IEI) or Vice-Chairs (AF/A3O-B and AF/A7C). The EMWG membership includes designated primary and alternate representatives from the following organizations: Legislative Liaison (SAF/LLP); SAF/GCN; Public Affairs (SAF/PAO); Finance & Budget (SAF/FMB); SAF/CIO A6; Manpower (AF/A1M); Intelligence (AF/A2CG); Logistics (AF/A4L); Strategic Basing (AF/A8PB); Studies and Analysis (AF/A9R); Safety (AF/SE); Surgeon General (AF/SG); Test and Evaluation (AF/TE); AF/A7S; AF/A10; Air Force Reserve (AF/REX); NGB/A7; AFLOA/JACE; and AFSMO. The EMWG is supported by additional FOA subject matter experts, as needed. The EMWG shall:

3.3.2.1.1.1. Maintain situational awareness of encroachment and sustainment challenges across the Air Force.

3.3.2.1.1.2. Review and monitor encroachment Management Actions and address, as needed, encroachment and sustainment challenges elevated through the EMT guidance described below. (See Section 3.3.3)

3.3.2.1.1.3. Advocate for education and training requirements throughout the Air Force.

3.3.2.1.1.4. Advocate for policy and legislative initiatives to prevent and reduce encroachment.

3.3.2.1.1.5. Review and comment on Air Force policy, guidance, or initiatives related to encroachment management.

3.3.2.1.1.6. Review proposed AFEM research needs, endorse recommendations, and advocate for funding through appropriate research programs. Research may be needed to identify and develop technical solutions and strategies to prevent or reduce the impacts of encroachment. When the need for research is identified, either in an ICEMAP or through other means, it shall be reviewed and validated through the EMT structure and elevated to HAF. Results of such research will be briefed to the EMWG.

3.3.2.1.1.7. Task subordinate offices, as necessary and appropriate, with specific action items related to encroachment management.

3.3.2.2. **MAJCOM/DRU EMT.** MAJCOM and DRU Commanders will establish EMTs and designate the EMT Chair and Vice Chair. The MAJCOM/DRU EMT advises and assists the MAJCOM/DRU Commander and appropriate organizations with their encroachment management responsibilities, serving as the primary intermediary between HAF and installations. Further, the MAJCOM/DRU EMT engages, as necessary, with both the EMWG and IEMTs on encroachment and sustainment challenges. The MAJCOM/DRU EMT can establish issue-oriented working groups to address specific encroachment and sustainment challenges that affect MAJCOM/DRU installations (e.g., a Sustainable Water Strategy Working Group) (T-2).

3.3.2.2.1. **MAJCOM/DRU EMT Membership.** The MAJCOM/DRU EMT shall include representatives from the following organizations (additional representatives may be invited where appropriate): Airfield Management; Airspace Management; TERPS; Budget; Civil Engineer (e.g., Environmental, Community Planner/AICUZ Manager, Real Property); Communications; PA; Manpower, Organization, and Resources; Plans; Range Operations; Tenant Commands (e.g., ANG or Air Force Reserve Command (AFRC)); Safety; Security Forces; Spectrum Management; Staff Judge Advocate; Command Surgeon; Weather; Logistics; and Test and Evaluation. These representatives provide the subject matter expertise necessary to allow the EMT to address encroachment across the MAJCOM/DRU enterprise. Relevant FOAs and SAF/IEE REOs can be invited to participate as members of the MAJCOM/DRU EMT, as requested. EMT members are responsible for sharing and distributing cross-functional knowledge of encroachment and sustainment challenges to each other. This information-sharing will promote situational awareness of encroachment issues. The MAJCOM/DRU EMT shall:

3.3.2.2.1.1. Maintain situational awareness of encroachment across their enterprise. To promote cross-functional awareness of encroachment, EMT members shall routinely provide updates on the status of current and potential challenges within their program areas of responsibility and expertise to other members of the EMT.

3.3.2.2.1.2. Coordinate the review of and develop positions for, when necessary and appropriate, the MAJCOM/DRU commander on proposed federal, state, or local agency legislation, regulations, guidelines, programs, or plans that could result in encroachment. Provide input, when necessary and appropriate, to reviews of state legislation and regulations to the appropriate SAF/IEE REO for integration with other MAJCOM or installation resources.

3.3.2.2.1.3. Assist the MAJCOM/DRU in communicating the Air Force's overall encroachment management policy and guidance to their installations.

3.3.2.3. **IEMT.** The installation commander will establish an IEMT to assist in implementing the AFEM Program at the installation. Instead of creating a new cross-functional team, installations may utilize (and augment as necessary to ensure the appropriate functional organizations are represented) existing teams, such as the Air Operations Board, the Facilities Board, or the Environmental Safety and Occupational Health Council, to conduct the duties of the IEMT. Additionally, the IEMT can establish

issue-oriented working groups to address specific encroachment and sustainment challenges (T-3).

3.3.2.3.1. IEMT Membership. The membership of the IEMT shall include representatives from the following functional organizations (additional representatives may be invited where appropriate): Airfield Operations (e.g., Airfield Management, Air Traffic Control); Airspace Management; TERPS; Financial Management; Civil Engineer (e.g., Environmental, Community Planner/AICUZ Manager, Real Property, Emergency Manager); Communications; PA; Manpower, Organization, and Resources; Range Management; Installation Tenants (e.g., ANG or AFRC); Safety; Security Forces; Spectrum Management; Office of the Staff Judge Advocate; Surgeon General (e.g., Bioenvironmental Engineering); Weather; and Test and Evaluation. These representatives provide the subject matter expertise necessary to allow the IEMT to address encroachment across the IC/MF. Relevant FOAs and SAF/IEE REOs can be invited to participate as members of the IEMT, as requested. IEMT members are responsible for sharing and distributing cross-functional knowledge of encroachment and sustainment challenges to each other. This information-sharing will promote situational awareness of encroachment issues; opportunities may include, but are not limited to, Wingman Days, Newcomer Briefings, and Commander's Calls. The IEMT shall (T-3):

3.3.2.3.1.1. Maintain situational awareness across the IC/MF. Annually review the IC/MF for accuracy and update as appropriate. Routinely provide updates on the status of current and potential encroachment and sustainment challenges within their program areas of responsibility and expertise to other members of the IEMT. Report annually on the status of the AFEM Program implementation at the installation level to the MAJCOM EMT (T-3).

3.3.2.3.1.2. Conduct an internal encroachment study and develop an internal ICEMAP (if no external ICEMAP exists). Annually maintain the internal ICEMAP until the external study and ICEMAP are completed (see Section 3.4 for additional details on encroachment studies and ICEMAPs). Once the external study and ICEMAP are complete, the IEMT will maintain the Action Plan portion (including the Management Action Spreadsheet) to ensure it reflects current conditions (T-3).

3.3.2.3.1.3. Brief the installation commander, tenant commanders, and other internal stakeholders, at least annually, on encroachment, emerging threats, the status of progress on prioritized action items, and recommended encroachment management focus areas for the coming fiscal year (T-3).

3.3.2.3.1.4. Through established processes, comment upon pending and potential legislation that could result in actions affecting IC/MF operations (T-3).

3.3.3. **Executive Director of the IEMT.** The Executive Director of the IEMT is the installation lead for coordinating AFEM Program activities. The Executive Director will report to the installation commander, serving as the primary advisor to leadership on encroachment and sustainment challenges and proposed management strategies (T-3).

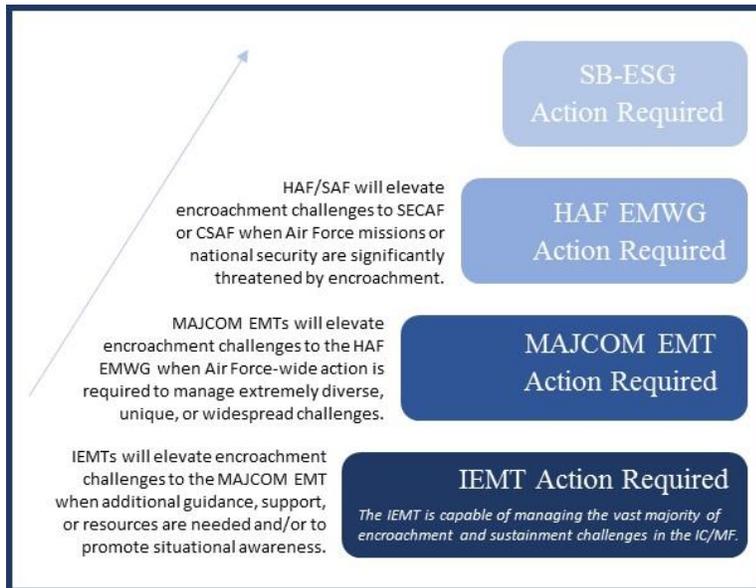
**3.3.4. Elevating Issues.** Although most encroachment and sustainment challenges will be addressed at the installation level, there may be situations in which MAJCOMs or higher headquarters can provide guidance or assistance, or should simply be made aware of a potentially sensitive situation, such as negative mission impacts, negative media attention, or political interests. The guidelines for conditions or situations that should be elevated to the next higher level are depicted in Figure 3.2. HAF will mediate conflicts arising between tenants and hosts under different MAJCOMs or Services. Relevant energy projects analyzed through the Mission Compatibility Evaluation Process must be elevated through the DOD Siting Clearinghouse process when necessary.

3.3.4.1. Formal and informal project reviews tasked to the Air Force by the DOD Siting Clearinghouse can lead to substantive discussions between installation personnel and energy project proponents, the focus of which are identifying mitigations to mission impacts created by proposed energy projects. The purpose of an informal review is to identify potential impacts and provide the project proponent with an installation point of contact for further discussions. During a formal review, if unacceptable impacts are identified, a Mitigation Response Team (MRT) will routinely be established by the DOD Siting Clearinghouse. It is the responsibility of the IEMT or appropriate installation personnel to initially work with the developer to resolve the conflict. HAF and MAJCOM assistance are available as needed. If the developer is willing to negotiate, periodic updates (e.g., every two weeks) should be provided to AF/A3O-B through the MAJCOM. These updates will be provided by AF/A3O-B to the DOD Siting Clearinghouse and to the FAA, as required. If the conflict cannot be resolved at the local level, or the developer is unwilling to negotiate, then it should be elevated to the MAJCOM. The MAJCOM should determine if the conflict can be resolved and if not, then it should be elevated to HAF. In these cases, HAF will coordinate with OSD to establish a HAF/OSD level MRT.

3.3.4.2. EMWG Issue Elevation. The EMWG reviews very significant encroachment and sustainment challenges elevated through the EMT structure, such as those that may constrain military readiness or operational capacity and capability, or those that may result in negative impacts on local communities. The chair of the EMWG decides whether to elevate an issue to the SB-ESG IAW Figure 3.2. The SB-ESG approves or recommends any major courses of action to the SECAF or the Chief of Staff of the US Air Force (CSAF), as appropriate.

3.3.4.3. MAJCOM Issue Elevation. In addition to supporting the MAJCOM/DRU commander, the EMT will elevate issues IAW the guidelines provided in Figure 3.2 through the appropriate member's chain of command to HAF, via the program manager. MAJCOM EMTs may also set their own criteria for specific types of issues they wish to see elevated to their level. MAJCOM EMT briefings to the HAF-level EMWG will be coordinated with relevant FOAs, SAF/IEE REOs, and IEMTs, as necessary.

3.3.4.4. Installation Issue Elevation. In addition to the guidelines in Figure 3.2, IEMTs can elevate issues, using their own discretion, in unique or extreme circumstances to the MAJCOM EMT.

**Figure 3.2. Elevating Encroachment Issues for Higher Echelon Review.**

**3.3.5. IC/MF.** The IC/MF (see Section 1.3) defines the geographic scope of an installation's encroachment management responsibilities. The IC/MF is used to understand total system requirements, including component control and usage responsibilities, needed to support host and tenant operations. The IC/MF also helps identify stakeholders with shared interests.

**3.3.5.1. Mapping the IC/MF.** A geospatial depiction of the IC/MF will be created using approved data sources IAW AFI 32-10112. The IEMT, with assistance from AFCEC as necessary, is responsible for maintaining the currency of IC/MF maps, or creating an initial map if one does not exist, to ensure that encroachment studies address challenges across the IC/MF. Where one exists, the GI&S office will create, collect, and standardize data used to develop the IC/MF and ICEMAP, providing consistent analysis of encroachment and sustainment challenges. Any geospatial data created, collected, or maintained shall be done so in DOD Spatial Data Standards for Facilities, Infrastructure, and Environment 3.0 format (or successor format) IAW the AF/A7C Geobase governance process. Once compiled, installations will store and update their data at DISA-Global Information Grid (GIG) Content Delivery System (GCDS). Working versions may be stored either at a GCDS workspace or at an installation-level location.

**3.3.5.1.1. Details on defining the IC/MF, Region of Influence (ROI), and ROI Priority Areas,** including preferred data sources, can be found on the AFEM SharePoint site (<https://eis.af.mil/cs/safiei/default.aspx>). These maps are housed on the AFEM SharePoint site and should be updated as part of the internal or external study (see Section 3.4.1).

**3.3.5.2. Region of Influence.** The ROI is the larger geopolitical area that the installation operates within, including the installation and other assets such as airspace and training areas. This area usually coincides with communities where the installation has contextual interest (i.e., economic, political, cultural, social, environmental, and legal) and focuses outreach and engagement resources. The ROI defines the areas where the installation or its higher headquarters should engage with external stakeholders to address prevention or

reduction measures for the impact of mission operations on nearby communities or vice versa.

3.3.5.2.1. ICEMAP ROI Priority Areas. In cases where the ROI includes extensive geographic areas (e.g., such as multi-state Military Training Routes (MTRs)), the ICEMAP delineates ICEMAP ROI Priority Areas to focus limited engagement resources on the geopolitical areas where critical mission operations take place or stakeholder actions incompatible with mission operations have been identified or are most likely to occur. The factors that determine the ICEMAP ROI Priority Areas will vary between installations because each ICEMAP is tailored for an installation's mission operations, encroachment challenge analysis, and required outreach. ROIs change over time as installations and communities evolve. Thus, the ROI and the ROI Priority Areas in particular, should be monitored for trends and changes in use, local and regional planning, and development.

3.3.5.3. Engagement within the IC/MF. The IC/MF geopolitical area should be used to identify local communities where some level of outreach and engagement may be needed (i.e., the ROI) to address encroachment and sustainment challenges. The IC/MF helps the IEMT identify and prioritize stakeholder and engagement strategies for all relevant sites and activities.

**3.4. Assess.** This key component of the AFEM Program (see Figure 3.1) includes developing encroachment studies and ICEMAPs and studying internal and external relationships. IEMT members will study encroachment and sustainment challenges across the entire IC/MF. These challenges (defined in Attachment 2), can be more generally grouped into five broad categories: 1) Environmental, Health or Safety Regulatory Restrictions; 2) Compatible Use; 3) Competition for Resources; 4) Security; and 5) Long-term Mission Sustainment.

3.4.1. **Encroachment Studies.** The encroachment study is the process used to develop an ICEMAP. There are two types of studies: 1) the mandatory internal study, which is conducted by the IEMT using in-house resources and produces an internal ICEMAP, and 2) the optional external study, which is conducted by a contractor or MAJCOM (in close coordination with installation staff) and produces an external ICEMAP which will build off of, and replace, the internal ICEMAP. Both studies apply mission and community constraints (defined in Attachment 2) to identify encroachment and sustainment challenges. Additionally, both studies evaluate the installation's encroachment condition, relative to four evaluation factors: 1) mission impacts; 2) community impacts; 3) program implementation; and 4) external stakeholders; there is also a "N/A" category for those factors that are not applicable. The major differences between the two studies include the depth and extent of the analysis and the team conducting the study. The IEMT is responsible for maintaining the currency of internal and external ICEMAPs. Additional details on the study are on the AFEM SharePoint site (<https://eis.af.mil/cs/safiei/default.aspx>). The encroachment studies include criteria that will be used to determine the condition of stakeholder relationships and identify gaps where relationships are needed. The encroachment studies also include the development of Management Actions.

3.4.1.1. Internal Study. The internal study process leverages foundational programs and resources to produce a baseline encroachment analysis and associated proposed management actions to prevent or reduce encroachment. To conduct the study and

develop the internal ICEMAP, IEMT members will understand their respective areas of responsibility across the IC/MF in relation to encroachment and sustainment challenges. The internal study also includes a brief analysis of existing stakeholder relationships and the development of Management Actions, which will drive resource prioritization. Identified stakeholder relationships should be maintained or updated through existing information-sharing processes to raise awareness of the AFEM Program. A detailed description of how to conduct the internal study is on the AFEM SharePoint site (<https://eis.af.mil/cs/safiei/default.aspx>). The internal study process does not include active engagement with external stakeholders.

3.4.1.2. External Study. The external study process is a more detailed, comprehensive analysis of the IC/MF, is completed in close coordination with the IEMT, and produces an external ICEMAP. The external study can be completed by contractor or MAJCOM personnel, with additional reachback support provided by AFCEC or other FOAs, as needed. Centrally funded or contracted support from MAJCOMs can supplement the external study process at the installation level. The external study process includes the components of the internal study process, as well as comprehensive reviews of Air Force programs, comprehensive reviews of relevant installation reports and documents, interviews with internal and external stakeholders, and research of external programs, policies, and conditions that contribute to potential encroachment, as appropriate. The external study provides the context for each of the encroachment and sustainment challenge areas and the team's findings, including proposed solution strategies, a detailed outreach and engagement strategy, and the Commander's Action Plan.

3.4.2. **ICEMAPs.** Active encroachment management requires an Action Plan to prioritize the use of resources and initiatives that provide the best opportunities for success. Internal and external ICEMAPs are required to include four basic items: 1) the identification of encroachment and sustainment challenges; 2) the identification of resources and opportunities for overcoming identified threats (i.e., Management Actions); 3) a plan to address each challenge as appropriate, although some challenges may not warrant or require action; and, 4) a tracking tool for maintaining progress (i.e., a Management Action Spreadsheet). ICEMAPs are living documents that require maintenance as conditions change; the IEMT is responsible for maintaining the currency of ICEMAPs by continuously identifying and studying new encroachment and sustainment challenges and solution strategies. An internal ICEMAP should contain, at minimum, a description and map of the IC/MF, encroachment condition summaries for relevant encroachment and sustainment challenge areas, Management Actions and a Management Action Spreadsheet, and a Stakeholder Matrix. (See Attachment 3 for a notional listing of external ICEMAP contents.)

3.4.2.1. JLUS and AFEM Relationship. The AFEM Program builds on, and enhances, other programs that address encroachment issues, such as the OSD OEA Compatible Use program. The Compatible Use program is the only federal program that provides direct assistance to communities to help them work with the military to prevent and reduce encroachment. For installations within the United States, technical and financial assistance is available for state and local governments through the JLUS process to partner with local military installations to plan and implement strategies promoting compatible civilian use adjacent to installations, ranges, and military flight corridors. The JLUS process and the encroachment study with its resulting ICEMAP are DOD and Air

Force mechanisms that provide value in addressing encroachment and sustainment challenges. The JLUS is a community-driven initiative to guide compatible civilian development within military areas of influence (e.g., installation, ranges, military training routes, etc.). The encroachment study and resulting ICEMAP represent an internal Air Force analysis of encroachment factors with prioritized management actions for the Installation Commander and IEMT. See Department of Defense Instruction 3030.3, *Joint Land Use Study (JLUS) Program*, for additional details.

3.4.2.2. The JLUS Process. Based upon the Air Force's technical data describing the operational activities, MF, and areas of influence, the affected jurisdictions engage with a variety of stakeholders (including military; federal, state, and local officials; residents; businesses; and landowners) to develop a strategic plan with specific implementation actions. The underlying purpose of a JLUS primarily enables associated jurisdictions to address and prevent incompatible civilian development that could impair the operational utility of the military missions or affect available resources (e.g., air, land, water, and EM spectrum). Some examples of implementation actions include establishing military overlay districts with specific land use and zoning requirements; unified development ordinances; amending capital improvement plans; transfer of development rights; building code, sound attenuation measures; and local development review procedures to ensure input from the military.

3.4.3. **Host–Tenant and Joint Base Internal Relationships.** Strong host–tenant and Joint Base internal relationships are necessary for effective encroachment management; understanding the quality, type, and frequency of these relationships supports the development of successful encroachment management and engagement strategies. Air Force ICs support their host unit (i.e., the primary user and manager of the installation) and a potentially large and diverse number of tenants and/or mission partners. While these missions may be complementary to the host unit's mission, competition is not uncommon for facilities, operating space, or other resources. Installations shall incorporate tenant and/or mission partner missions and operating space into the AFEM Program and include them in the encroachment studies and ICEMAPs, when applicable. At Joint Bases, Supporting Commanders are responsible for implementing encroachment management in support of the supported Services operational mission, IAW the Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Environmental Supplemental Guidance for Implementing and Operating a Joint Base," 15 April 2008 (Note: Copies may be obtained at <https://www.us.army.mil/suite/page/560093>). Any internal host–tenant conflicts over resources are typically resolved through adjustments to internal processes and procedures defined in host–tenant agreements.

3.4.4. **External Stakeholder Relationships.** Building external stakeholder relationships is an essential element of the AFEM Program; understanding the quality, type, and frequency of relationships outside the fenceline also supports successful encroachment management and engagement strategies. Installation commanders and encroachment managers must understand the value of maintaining positive external stakeholder relationships; these relationships enhance mission readiness, simplify engagement on specific issues, and help the Air Force anticipate changing encroachment trends. Both internal and external encroachment studies will identify existing relationships related to foundational program responsibilities, as well as additional stakeholder relationships (both formal and informal)

that exist between the installation and surrounding communities. IEMT members should engage with stakeholders according to their foundational program responsibilities. All engagement activities should be coordinated with the IEMT Executive Director. Maintaining and enhancing stakeholder relationships is a critical part of the AFEM Program. At installations located outside the United States and its territories, implement this paragraph with applicable international agreements, COCOM policy, and LEC directives. Installations should contact their MAJCOM EMT Chair for more information if needed.

**3.5. Act.** Taking action is the most crucial element of encroachment management, and occurs throughout all programs and at all echelons of the Air Force. It may include activities such as implementing ICEMAP Management Actions, building resource requirements, engaging with stakeholders, developing new tools, and obtaining necessary training and education. The actions taken to implement the foundational programs, such as developing plans or analyzing specific development proposals for compatibility, are also equally important. OPRs or Offices of Collateral Responsibility (OCRs) for specific actions will report progress on the execution of projects or solution strategies to the IEMT on a regular basis.

**3.5.1. ICEMAP Execution.** Internal and external ICEMAPs contain recommended Management Actions that are designed to prevent and reduce encroachment. Encroachment and sustainment challenges may require a range of actions that must be executed to promote successful encroachment management and the sustainment of the AFEM Program.

**3.5.2. Building Resource Requirements.** OPRs for assigned Management Actions developed in the ICEMAP shall identify projects and resource requirements in their organizational funding process. Requirements that compete for funds from AF/A7C centrally managed programs will be identified in the applicable BAMP and prioritized in the BCAMP at the installation level. These requirements are then captured in the appropriate MAMP and prioritized in the MCAMP at the MAJCOM level. At the HAF level, the requirements are captured in the appropriate Air Force Activity Management Plan (AFAMP) which supports the FYDP and prioritized in the Air Force Comprehensive Asset Management Plan (AFCAMP) (budget year). Other foundational programs may establish strategies for their installations to fund ICEMAP actions.

**3.5.3. Engagement.** Active partnering with stakeholders is essential for effective encroachment management and occurs throughout every element of the AFEM framework. Specifically within the Act element, encroachment managers engage with stakeholders to build beneficial and lasting relationships. In addition to the engagement activities identified through the encroachment study process, stakeholder engagement also occurs through implementation of the foundational programs, such as the AICUZ Program. MAJCOM EMTs, the EMWG, or the SB-ESG shall be consulted in the design and execution of engagement strategies, if needed, for issues elevated to HAF. The IEMT shall work with installation PA to develop messaging and communication plans to work with civic leaders, media, and key elected officials, as well as Airmen and senior Air Force leaders. At overseas installations, implement this paragraph with applicable international agreements, COCOM policy, and LEC directives. Installations should contact their MAJCOM EMT Chair for more information, if needed.

**3.5.4. Development of Tools.** As new technologies present new encroachment and sustainment challenges, HAF or the FOAs, as appropriate, will develop or fund methods and

tools to predict and reduce impacts to operations. MAJCOM EMTs shall work with foundational program representatives to identify areas in need of specific analysis. The EMWG will work with MAJCOM EMTs to determine the appropriate means of analysis and to interpret the results for incorporation in IEMT plans or for use within foundational programs. SAF/IEN and the DOD Siting Clearinghouse will be included when considering R&D needs for energy-related encroachment studies and tool development. Additional details are provided in the respective AFIs. The foundational programs (see Section 1.2) utilize existing tools to manage encroachment; however, emerging challenges are creating the need for new tools, which include, but are not limited to, the following:

3.5.4.1. Air Traffic Control (ATC) Impacts and Radar Toolbox. AF/A3O will seek AFFSA support, when appropriate, for predictive analysis of energy development impacts on ATC radar system.

3.5.4.2. Airborne Radar Impact Tool. AF/A3O will seek Air Force Materiel Command support, when appropriate, for predictive analysis of energy development impacts on airborne radar during testing and training.

3.5.4.3. Mission Compatibility Analysis Tool (MCAT). AF/A3O developed an expansion of the US Navy's MCAT to enable Air Force assessments of obstructions and energy projects. The MCAT is the OSD system for evaluating energy projects in accordance with 2011 National Defense Authorization Act Section 358. The MCAT is the system for official Air Force responses to both OSD and the FAA, augmenting the current process for conducting OE/AAA. AF/A3O-B is coordinating MCAT implementation across the Air Force; further information on the MCAT will be published in future training materials and manuals as necessary.

3.5.4.3.1. MCAT access will be provided as required at every echelon of the Air Force. The specific role assigned to MCAT users will depend on their requirements and expertise. For instance, GI&S professionals will have capabilities and permissions that local airspace managers do not.

3.5.5. **Education and Training.** AFEM policies, strategies, and techniques will be integrated into education and training curricula at all levels of the Air Force. Topics include AFEM roles and responsibilities, encroachment issue elevation, competencies needed for engaging stakeholders, and outreach activities to develop joint actions and agreements on encroachment and sustainment challenges. AFEM education and training opportunities shall be distributed through existing Air Force seminars, councils, courses, and webinars as appropriate. Additional informal education and training resources will be posted on the AFEM SharePoint site (<https://eis.af.mil/cs/safiei/default.aspx>).

**3.6. Monitor.** Maintaining situational awareness of encroachment issues, mission needs, and the IC/MF through a range of monitoring activities is critical to successful encroachment management; many of these activities occur on an existing daily or routine basis through foundational programs. Monitoring must occur at all levels of the Air Force.

3.6.1. **Establish Monitoring Responsibilities.** Installation organizations monitor their areas of responsibility under the supporting foundational programs and, through the AFEM processes, the IEMT monitors the overall implementation of ICEMAPs and engagement strategies; these responsibilities will be documented appropriately through the encroachment

study process outlined in Section 3.4.1. Monitoring to understand local, regional, state, or federal positions on encroachment and sustainment challenges and regional trends is critical to proactively determine what issues may require action. FOAs and MAJCOMs/DRUs also play an active role in monitoring encroachment and sustainment challenges, providing necessary updates through the cross-functional encroachment team structure. The AFCEC shall provide additional monitoring support, as necessary.

**3.6.2. IC/MF Conditions.** The IC/MF defines the primary geographic area that shall be monitored by the installation. Through existing foundational programs, such as the AICUZ and installation planning programs, or installation PA media monitoring, installations shall monitor,

1) local land and infrastructure development trends and projects; 2) updates to local land use plans and zoning ordinances; and, 3) state agency and local municipal planning policies that could affect growth and development, for example, transportation plans, highway expansion plans, comprehensive plans, and energy-use plans. MAJCOMs shall maintain situational awareness across their enterprise to help share best practices and identify actions that need to be taken by the MAJCOM EMT. This includes identifying funding for implementing ICEMAP actions or issues that need to be considered as part of basing or beddown activities. SAF/IEE REOs will monitor state programs, while HAF, in coordination with SAF/IEE REOs, will monitor federal agency policies and programs that can inadvertently create encroachment and sustainment challenges. Any issues or concerns discovered during these monitoring activities should be brought to the attention of the MAJCOM EMT. In these instances, installations should contact the MAJCOM EMT before taking action other than continued monitoring. Additional areas to monitor include, but are not limited to, the following:

**3.6.2.1. Mission Needs.** The MSG/CC has the lead for monitoring mission needs, including tenant and mission partner needs. Understanding current and potential mission needs is necessary to plan resource requirements, successfully implement Management Actions and engagement strategies, and maintain situational awareness of potential challenges.

**3.6.2.2. Media.** Installation PA has the lead for monitoring media sources. Media coverage can provide an indication of future challenges, functioning as a gauge on the community's sentiment regarding military actions occurring on and off the installations or the impacts of an action on the military installation and mission. Media monitoring shall include traditional media sources, such as newspapers and television reports, and also non-traditional media sources, including blogs and social media, as appropriate. Continuous monitoring of media will also help identify potential stakeholder partnerships beneficial to encroachment management.

**3.6.2.3. Legislation and Government Policies.** Various Air Force echelons have responsibilities for maintaining situational awareness of legislation and government policies. Installations must remain aware of proposed changes to legislation, policies, and practices at the local level. SAF/IEE REOs will monitor and analyze proposed regional, state, or federal regulations in association with AFCEC and AFLOA/JACE. The AFLOA Regional Counsel will coordinate with SAF/IEE REOs, DOD RECs, and affected installations to address encroachment and sustainment challenges identified in ICEMAPs

or other approved sustainment programs, such as AICUZ, in the development of proposed state legislation.

3.6.2.4. **Technology.** Some private sector technologies result in unintentional impacts to the performance of Air Force mission critical equipment; however, emerging technologies can also provide encroachment mitigation solutions. The Air Force must have the capability to monitor both the positive and negative potential impacts of emerging technology that may affect mission capability and military readiness. Air Force organizations will monitor and identify technologies and incorporate knowledge and understanding into the AFEM Program.

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Principal Deputy Assistant Secretary  
Performing Duties as Assistant Secretary  
Installations, Environment and Logistics

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION***References*

**5 USC § 552**, *Public Information; Agency Rules, Opinions, Orders, Records, and Proceedings*

**10 USC Chapter 1803**, *Facilities for Reserve Components*

**10 USC § 10501**, *National Guard Bureau*

**10 USC § 10503**, *Functional of National Guard Bureau: Charter*

**10 USC § 2684a**, *Agreements to Limit Encroachments and Other Constraints on Military Training, Testing, and Operations*

**32 USC § 708**, *Property and Fiscal Officers*

**32 CFR Part 211**, *Mission Compatibility Evaluation Process*, 20 Oct 2011

**32 CFR Part 989**, *Environmental Impact Analysis Process (EIAP)*, 15 Jul 1999

**Executive Order (EO) 13423**, *Strengthening Federal Environmental, Energy, and Transportation Management*, 24 Jan 2007

**EO 13514**, *Federal Leadership in Environmental, Energy, and Economic Performance*, 5 Oct 2009

**EO 13547**, *Stewardship of the Ocean, Our Coasts, and the Great Lakes*, 19 Jul 2010

**EO 13636**, *Improving Critical Infrastructure Cybersecurity*, 12 Feb 2013

**DOD Directive 3000.10**, *Contingency Basing Outside the United States*, 10 Jan 2013

**DOD Directive 3030.01**, *Office of Economic Adjustment (OEA)*, 5 Mar 2006

**DOD Directive 3200.15**, *Sustaining Access to the Live Training and Test Domain*, 18 Dec 2013

**DOD Directive 8100.1**, *Management of the Department of Defense Information Enterprise*, 10 Feb 2009 **DOD 5400.7-R\_AFMAN 33-302**, *Freedom of Information Act Program*, 21 Oct 2010

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**AFPD 10-17**, *Cyberspace Operations*, 31 Jul 2012

**AFPD 10-24**, *Air Force Critical Infrastructure Program (CIP)*, 28 Apr 2006

**AFPD 13-2**, *Air Traffic, Airfield, Airspace, and Range Management*, 7 Aug 2007

**AFPD 32-70**, *Environmental Quality*, 20 Jul 1994

**AFPD 32-90**, *Real Property Asset Management*, 6 Aug 2007

**AFPD 33-1**, *Cyberspace Support*, 9 Aug 2012

**AFPD 90-8**, *Environment, Safety & Occupational Health Management and Risk Management*, 2 Feb 2012

**AFPD 90-20**, *Encroachment Management Program*, 12 Apr 2012

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**AFI 10-503**, *Strategic Basing*, 27 Sep 2010

**AFI 10-707**, *Spectrum Interference Resolution Program*, 20 Jun 2005

**AFI 11-230**, *Instrument Procedures*, 27 Sep 2013

**AFI 13-201**, *Airspace Management*, 21 Aug 2012

**AFI 13-204V2**, *Airfield Operations Standardization and Evaluations*, 1 Sep 2010

**AFI 13-204V3**, *Airfield Operations Procedures and Programs*, 1 Sep 2010

**AFI 13-212**, *Range Planning and Operations*, 16 Nov 2007

**AFI 15-128**, *Air Force Weather Roles and Responsibilities*, 7 Feb 2011

**AFI 16-701**, *Management, Administration and Oversight of Special Access Programs*, 18 Feb 2014

**AFI 25-201**, *Intra-Service, Intra-Agency, and Inter-Agency Support Agreements Procedures*, 18 Oct 2013

**AFI 31-401**, *Information Security Program Management*, 1 Nov 2005

**AFI 32-1032**, *Planning and Programming Appropriated Funded Maintenance, Repair, and Construction Projects*, 15 Oct 2003

**AFI 32-10112**, *Installation Geospatial Information and Services (Installation GI&S)*, 19 Oct 2007

**AFI 32-7001**, *Environmental Management*, 4 Nov 2011

**AFI 32-7020**, *The Environmental Restoration Program*, 7 Feb 2011

**AFI 32-7040**, *Air Quality Compliance and Resource Management*, 27 Aug 2007

**AFI 32-7041**, *Water Quality Compliance*, 10 Dec 2003

**AFI 32-7061**, *The Environmental Impact Analysis Process*, 12 Mar 2003

**AFI 32-7062**, *Comprehensive Planning*, 27 Jun 2013

**AFI 32-7063**, *Air Installation Compatible Use Zone Program*, 13 Sep 2005

**AFI 32-7064**, *Integrated Natural Resources Management*, 17 Sep 2004

**AFI 32-7065**, *Cultural Resources Management Program*, 1 Jun 2004

**AFI 32-7066**, *Environmental Baseline Surveys in Real Estate Transactions*, 25 Apr 1994

**AFI 32-9001**, *Acquisition of Real Property*, 27 Jul 1994

**AFI 32-9002**, *Use of Real Property Facilities*, 22 Nov 1993

**AFI 32-9004**, *Disposal of Real Property*, 21 Jul 1994

**AFI 33-150**, *Management of Cyberspace Support Activities*, 30 Nov 2011

**AFI 33-360**, *Publications and Forms Management*, 25 Sep 2013

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**AFI 90-802**, *Risk Management*, 11 Feb 2013

**AFI 90-803**, *Environmental, Safety, and Occupational Health Compliance Assessment and Management Program*, 24 Mar 2010

**AFMAN 33-361**, *Publishing Processes and Procedures*, 10 May 2010

**AFMAN 33-363**, *Management of Records*, 1 Mar 2008

**AFMAN 91-201**, *Explosives Safety Standards*, 12 Jan 2011

**AFPAM 90-803**, *Risk Management (RM) Guidelines and Tools*, 11 Feb 2013

#### ***Adopted Forms***

**AF Form 847**, *Recommendation for Change of Publication*

#### ***Abbreviations and Acronyms***

**AFAMP**—Air Force Activity Management Plan

**AFCAMP**—Air Force Comprehensive Asset Management Plan

**AFCEC**—Air Force Civil Engineer Center

**AFCS**—Air Force Corporate Structure

**AFEM**—Air Force Encroachment Management

**AFSA**—Air Force Flight Standards Agency

**AFI**—Air Force Instruction

**AFLOA**—Air Force Legal Operations Agency

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directive

**AFRC**—Air Force Reserve Command

**AFRIMS**—Air Force Records Information Management System

**AFSEC**—Air Force Safety Center

**AFSIR**—Air Force Spectrum Interference Resolution  
**AFSMO**—Air Force Spectrum Management Office  
**AFWA**—Air Force Weather Agency  
**AICUZ**—Air Installation Compatible Use Zone  
**AMP**—Asset Management Plan  
**ANG**—Air National Guard  
**AOCI**—Airfield Operations Compliance Inspection  
**ARC**—Airspace and Range Council  
**AT**—Antiterrorism  
**ATC**—Air Traffic Control  
**BASH**—Bird/Wildlife Aircraft Strike Hazard  
**BAMP**—Base Activity Management Plan  
**BCAMP**—Base Comprehensive Asset Management Plan  
**CAA**—Clean Air Act  
**CBO**—Congressional Budget Office  
**CFLI**—Core Function Lead Integrator  
**CLUS**—Compatible Land Use Strategy  
**COCOM**—Combatant Command  
**CSAF**—Chief of Staff of the United States Air Force  
**CWA**—Clean Water Act  
**DOD**—Department of Defense  
**DRU**—Direct Reporting Unit  
**EM**—Electromagnetic  
**EMT**—Encroachment Management Team  
**EMWG**—Encroachment Management Working Group  
**EO**—Executive Order  
**EPA**—Environmental Protection Agency  
**FAA**—Federal Aviation Administration  
**FOA**—Field Operating Agency  
**FYDP**—Future Years Defense Program  
**GCDS**—GIG Content Delivery Service  
**GI&S**—Geospatial Information and Services

**GIG**—Global Information Grid  
**HAF**—Headquarters United States Air Force  
**IAW**—In Accordance With  
**IC**—Installation Complex  
**ICEMAP**—Installation Complex Encroachment Management Action Plan  
**ICRMP**—Integrated Cultural Resources Management Plan  
**IDP**—Installation Development Plan  
**IEMT**—Installation Encroachment Management Team  
**INRMP**—Integrated Natural Resources Management Plan  
**JLUS**—Joint Land Use Study  
**JMOS**—Joint Management Oversight Structure  
**LEC**—Lead Environmental Component  
**MACA**—Mid-Air Collision Avoidance  
**MAJCOM**—Major Command  
**MAMP**—MAJCOM Activity Management Plan  
**MCAMP**—MAJCOM Comprehensive Asset Management Plan  
**MCAT**—Mission Compatibility Analysis Tool  
**MEC**—Munitions and Explosives of Concern  
**MF**—Mission Footprint  
**MRT**—Mitigation Response Team  
**MRTFB**—Major Range Test Facility Base  
**MSG**—Mission Support Group  
**MTR**—Military Training Routes  
**NAAQS**—National Ambient Air Quality Standards  
**NGB**—National Guard Bureau  
**NGO**—Non-Governmental Organization  
**NWS**—National Weather Service  
**OCR**—Office of Collateral Responsibility  
**OE/AAA**—Obstruction Evaluation/Airport Airspace Analysis  
**OEA**—Office of Economic Adjustment  
**OPR**—Office of Primary Responsibility  
**OSD**—Office of the Secretary of Defense

**PA**—Public Affairs  
**QD**—Quantity Distance  
**R&D**—Research and Development  
**RDS**—Records Disposition Schedule  
**REC**—Regional Environmental Coordinator  
**REO**—Regional Environmental Office  
**ROC**—Radar Operations Center  
**ROI**—Region of Influence  
**SAP**—Special Access Programs  
**SB**—ESG—Strategic Basing Executive Steering Group  
**SECAF**—Secretary of the Air Force  
**SDWA**—Safe Drinking Water Act  
**SUA**—Special Use Airspace  
**SWOT**—Strengths, Weaknesses, Opportunities and Threats  
**TERPS**—Terminal Instrument Procedures  
**UEI**—Unit Effectiveness Inspection  
**USFWS**—US Fish and Wildlife Service  
**UXO**—Unexploded Ordnance  
**WSR**—88D—Weather Surveillance Radar 1988 Doppler

### *Terms*

**Compatible Use**—Uses of land, water or airspace by the military and others that can co-exist with minimal adverse effects.

**Contingency Location**—A non-enduring location outside of the United States that supports and sustains operations during named and unnamed contingencies or other operations as an appropriate authority directs and is categorized by mission life-cycle requirements as initial, temporary, or semi-permanent.

**Encroachment**—In connection with the encroachment challenges set forth in AFD 90-20, Paragraph 1.7, any deliberate action by any governmental or non-governmental entity or individual that does, or is likely to inhibit, curtail, or impede current or future military activities within the installation complex and/or mission footprint; or any deliberate military activity that is, or is likely to be incompatible with a community's use of its resources.

**Encroachment Management**—Efforts undertaken by the Air Force alone or in conjunction with other federal, local, state, regional, and private entities, to prevent, eliminate or minimize impacts caused by encroachment.

**Installation Complex**—The land, facilities, airspace and ranges which provide direct mission support to and/or are managed by the installation. This includes a combination of land and facilities comprised of a main installation and its noncontiguous properties (auxiliary air fields, annexes, and missile fields) that provide direct support to or are supported by that installation. Installation complexes may comprise two or more properties, e.g., an installation or a support site, each with its associated annex(es) or support property(ies).

**Installation Complex Encroachment Management Action Plan (ICEMAP)**—The ICEMAP is a three volume document (Action Plan, Reference Book, and Community Brochure) which addresses current and future encroachment and sustainment challenges facing Air Force installations and their surrounding communities.

**Lead Environmental Component**—The Secretary of a Military Department, Combatant Commander, or Sub-unified Commander, designated by DOD to establish environmental compliance requirements for DOD enduring installations located outside the United States and US territories (i.e., in foreign countries). LEC duties may be delegated through the chain of command to an appropriate general or flag-level commander pursuant to DODI 4715.05, *Environmental Compliance at Installations Outside the United States*.

**Mission Footprint**—The installation complex plus any land, facilities, airspace, and/or ranges which are not managed by the installation, but which provide direct, routine support to the mission.

**Priority Region of Influence Areas**—The limited geopolitical area of the ROI where critical mission operations take place or stakeholder actions incompatible with mission operations have been identified or are most likely to occur.

**Region of Influence**—The geopolitical area that the installation operates within, including both the installation and other assets, such as airspace and training areas. This area usually coincides with communities where the installation has contextual interests (e.g., economic, political, cultural, social, environmental, and legal) and focuses outreach and engagement resources.

**Stakeholder**—A person or organization, either internal or external to the IC/MF, with personal, financial, or other manifest interest in an issue or decision. Stakeholders include, among others: DOD components; installation tenants; federal, state, regional, and local governments and agencies; Tribal Councils; individuals or groups outside DOD installations; current and future land owners; local or national advocacy groups; and the media.

**Sustainable Installation**—A sustainable installation efficiently supports current operations with minimal impacts on the built and natural environments without compromising the ability to meet future mission requirements.

**System**—A group of interacting, interrelated, or interdependent elements forming a complex or unitary whole.

## Attachment 2

### ENCROACHMENT CONDITION SUMMARY, ENCROACHMENT AND SUSTAINMENT CHALLENGE AREAS, AND MISSION AND COMMUNITY CONSTRAINTS

**A2.1. Background.** This attachment outlines components of the internal study and ICEMAP (which is eventually replaced by the external study and ICEMAP), describes the 13 encroachment and sustainment challenges, and lists potential mission and community constraints resulting from encroachment.

**A2.2. Internal Study.** The internal study is intended to 1) educate members of the IEMT on how their existing programs and ongoing roles and responsibilities complement the 13 encroachment and sustainment challenge areas; 2) provide members of the IEMT with specific examples of encroachment and sustainment challenges related to their programs and areas of responsibility, and information on how to recognize these challenges; 3) provide guidance to IEMT members on their role in the development of the internal study; 4) help the IEMT identify key stakeholders and related ongoing engagement efforts, while using existing engagement efforts to enhance the study process; and 5) develop Management Actions. The internal study process and subsequent internal ICEMAP focus on leveraging existing foundational program resources and knowledge for successful encroachment management, but do not include active engagement with external stakeholders.

**A2.3. Evaluation Factors.** The internal study analyzes individual encroachment and sustainment challenges relative to the following factors: 1) **Mission Impacts** resulting from encroachment and sustainment challenges, including “mission constraints” that may require workarounds; 2) **Community Impacts**, both actual and perceived by the community, resulting from military mission-related activities, including “community constraints” that may affect quality of life; 3) **Program Implementation** of existing foundational programs related to encroachment and sustainment challenges and status of documents, studies, and plans related to the challenges; and 4) **External Stakeholder** considerations, including community support or opposition, quality of relationships, regulatory protections, and information sharing related to the challenges. IEMT members should be aware that the following descriptions are provided as informative guidelines for conducting the internal study.

A2.3.1. Mission Impacts and Community Impacts study the significance of encroachment on mission capability and perceived community quality of life using a green-through-red scale, with an option to select “Not Applicable”. The following definitions provide guidance for rating encroachment and sustainment challenges for the internal and external studies:

**Figure A2.1. Mission and Community Impact Categories.**

N/A:	Not Applicable
	Insignificant
	Potentially Significant
	Moderately Significant
	Potentially Very Significant
	Very Significant

A2.3.2. Program Implementation factors study the outcomes of programs related to encroachment and sustainment challenges. External Stakeholder factors study community support or opposition, quality of relationships, regulatory protections, and information sharing related to the challenge. Program Implementation and External Stakeholder categories are indicated using a green-through-red scale, based on likely effectiveness, with an option to select “Not Applicable”:

**Figure A2.2. Program Implementation and External Stakeholder Categories.**

- N/A: Not Applicable
-  Highly Effective
-  Potentially Effective
-  Needs Improvement
-  Potentially Ineffective
-  Significantly Ineffective

A2.3.3. Figures A2.3 and A2.4 in the following sections utilize the categories defined above to provide guidance for studying encroachment and sustainment challenges across the IC/MF. The language below is not intended to provide definitions of how to rank individual encroachment and sustainment challenges; rather, it provides notional examples of how these challenges may be affecting missions or communities. Within each cell, the guidelines provide unique examples of how encroachment may be manifested on installations and in communities. Every encroachment situation is different; IEMTs should be aware that not every example in the tables below will exist for every impact. After using the four factors defined in A2.3 to analyze encroachment and sustainment challenges across the IC/MF, the ICEMAP team can produce the Encroachment Condition Summary, Figure A2.5.

Figure A2.3. Mission Impacts and Community Impacts Guidelines.

Category	Mission Impacts	Community Impacts
N/A	Not Applicable. This encroachment and sustainment challenge area is not creating mission impacts.	Not Applicable. This encroachment and sustainment challenge area is not creating community impacts.
 <b>Insignificant</b>	Mission capable. Little or no impact to operations. Minor restrictions may exist. Workarounds are available.	Little or no quality of life impacts to the community. Minor inconveniences may exist but occur infrequently. No reaction or complaints on the part of community members.
 <b>Potentially Significant</b>	Mission capable with potential restrictions. Moderate impacts to operations may occur in the near- to mid-term. Workarounds are available.	Minor quality of life impacts to the community. These impacts are occasional and/or temporary. Community members may be registering complaints with the installation or local government. Impacts can be reduced by relatively easy Air Force action.
 <b>Moderately Significant</b>	Mission capable with restrictions. Moderate impacts to operations occur regularly. Workarounds are available.	Moderate quality of life impacts to the community. These impacts occur on a routine basis. Community member complaints are now covered by the media and local government is involved. To reduce impacts requires more substantial Air Force action.
 <b>Potentially Very Significant</b>	Mission failure and loss likely. Severe restrictions exist that prevent operations to the degree required. Few workarounds are available.	Severe quality of life impacts to the community. These impacts occur daily and significantly affect quality of life. Community members have contacted Congress. To reduce impacts would require extensive Air Force action.
 <b>Very Significant</b>	Mission failure. Severe restrictions preventing operations. No workarounds are available.	Very severe and significant quality of life impacts to the community. Community members have resorted to litigation. To reduce impacts requires extensive resources and Air Force action.

Figure A2.4. Program Implementation and External Stakeholders Guidelines.

Category	Program Implementation	External Stakeholders
N/A	Not Applicable. This encroachment and sustainment challenge area is not affected by program implementation.	Not Applicable. This encroachment and sustainment challenge area is not affected by external stakeholders.
 <b>Highly Effective</b>	Studies/plans related to encroachment are prepared and current. Appropriate resources/personnel available to engage community. IEMT is established, with ongoing member interactions and frequent meetings. Stakeholder engagement is routine and executed against a plan.	Operations/operational effects are widely supported by the state/community. Extensive state and community regulatory and land use protections are in place. Key stakeholders routinely engage the installation in direct, supportive public forum and social events. Media coverage of the installation is positive.
 <b>Fairly Effective</b>	Studies/plans related to encroachment are mostly current or being prepared/updated. Appropriate resources/personnel are mainly available to engage community; some additional support being sought. IEMT is established and meeting but adherence to planned meeting schedule needs attention. Stakeholder engagement is periodic, ad hoc, and typically problem oriented; and occurs with little adherence to plan.	Operations/operational effects meet with approval or minimal opposition within the state/community. Many state and local community regulatory and land use protections are in place. Key stakeholders often positively engage the installation on issues and share information. Media coverage of the installation is generally positive.
 <b>Needs Improvement</b>	Studies/plans related to encroachment are prepared or being prepared, but most are not current. Appropriate resources/personnel are not available to engage community, but being sought. IEMT is established, but needs to establish plan for member interactions and meetings and adhere to plan. Stakeholder engagement is infrequent and crisis oriented; and occurs with no adherence to plan.	Operations/operational effects meet with mixed approval or opposition within the state/community. Few state and local community regulatory and land use protections are in place. Key stakeholders share information but usually when a complaint or crisis emerges. Public and key stakeholder complaints are common and media coverage of the installation is mixed.
 <b>Potentially</b>	Studies/plans related to encroachment are not prepared or current, and no plan is in place to	Installation operations/operational effects have minimal support and face strong opposition within the

<p><b>Ineffective</b></p>	<p>prepare or update them. Appropriate resources/personnel are not available to engage community and not being actively sought. IEMT is not established, but being planned. Stakeholder engagement only occurs in a reactive mode.</p>	<p>state/community. No state or local community regulatory or land use protections are in place to sustain the mission. Stakeholders rarely share information. Complaints are made to Congress on a frequent basis and negative media coverage is routine.</p>
<p> <b>Significantly Ineffective</b></p>	<p>Studies/plans related to encroachment are not prepared and there are no plans to prepare them. Appropriate resources/personnel are not available to engage community and are not being sought. IEMT is not established and not being planned. Stakeholder engagement absent.</p>	<p>Operations/operational effects face significant opposition from most within the state/community. No state or local community regulatory or land use protections are in place. Direct communication to the installation by stakeholders is nonexistent and Congressional inquiry in support of community complaints is sustained. Complaints are leading to litigation and negative media coverage is extensive.</p>

Figure A2.5. Notional Encroachment Condition Summary.

Encroachment and Sustainment Challenge Area	Mission Impacts	Community Impacts	Program Implementation	External Stakeholders
 Airspace and Land Restrictions				
 Airborne Noise				
 Urban Growth				
 Spectrum Encroachment				
 Endangered Species and Critical Habitat				
 Air				
 Water				
 Cultural Resources				

 Unexploded Ordnance and Munitions				
 Marine Resources				
 Energy Compatibility and Availability				
 Security/Safety				
 Natural Factors and Climate Effects				
Key:  →  →  →  →  N/A: Not Applicable	(Insignificant → Very Significant)		(Highly Effective → Significantly Ineffective)	

**A2.4. Encroachment and Sustainment Challenge Areas.** As stated in AFPD 90-20, the 13 encroachment and sustainment challenge areas defined below can be grouped into five broader categories: 1) Environmental, Health, or Safety Regulatory Restrictions; 2) Compatible Use; 3) Competition for Resources; 4) Security; and 5) Long-term Mission Sustainment. Each of the encroachment and sustainment challenge descriptions below contains a characterization of the negative impacts to military operations or local communities, a listing of foundational programs that have responsibilities for managing the issue, and the primary category it falls under. Some include a secondary category to capture multiple aspects of the issue. These descriptions are intended to guide encroachment studies; IEMTs should be aware that encroachment and sustainment challenges are dynamic and new challenges emerge over time.

**A2.4.1. Airspace and Land Restrictions.** The Air Force requires air and land to conduct realistic training, weapons employment, and critical testing and evaluation of aircraft, weapons, and systems. Airspace and Land Restrictions include any regulatory, internal, or external actions that compete with Air Force activities for the same land, airspace, or geometric airfield surfaces in and around the IC/MF necessary for maintaining operational readiness. Emerging platforms and systems may require more rather than less airspace and land for realistic training and testing. Special Use Airspace (SUA) will become increasingly crucial with increasing emphasis on near-real-time management. These restrictions also include lack of required access to MTRs, ranges, and training and testing facilities, as well as land development or mineral right development activities that could disturb Air Force underground or surface infrastructure, such as communications or power cables for geographically separate sites (e.g., communications sites, missile fields, and drop zones).

A2.4.1.1. Specific encroachment examples include, but are not limited to: the development of tall structures (including utility-scale wind turbines); limited access to MTRs or SUA; new mission requirements resulting in capacity concerns; and competition between Air Force and civil aviation interests. Existing programs that address this encroachment challenge area may include, but are not limited to, the AICUZ Program; the OE/AAA Program; and the UEI. The Primary Category for Airspace and Land Restrictions is: Competition for Resources.

**A2.4.2. Airborne Noise.** Airborne Noise is any noise associated with military readiness activities (e.g., aircraft operations, small and large caliber weapons firing, rocket launches, munitions detonations from test and training operations, and sonic booms) that impacts nearby communities. The issues associated with noise include annoyance, real or perceived health impacts, impacts on animals (wildlife or domestic stock), and impacts to structures. In response to noise complaints, installations have created avoidance areas along training routes, modified flight tracks around the airfield for departures or arrivals, and modified pattern altitudes; each of these reduces the usefulness of the airspace for conducting realistic training.

A2.4.2.1. The AICUZ program, where implemented, is the primary program for addressing noise issues around the airfield. The Primary Category for Airborne Noise is: Compatible Use.

**A2.4.3. Urban Growth.** Urban Growth encompasses the development of nearby communities resulting in additional housing and infrastructure, higher population densities, loss and conversion of agricultural, grazing, or forest land, or commercial property development. It is a potential driver of other encroachment and sustainment challenges (e.g., Spectrum Encroachment, Energy Compatibility and Availability, Air, Water, and Endangered Species and Critical Habitat) and can be the root cause of other encroachment concerns including traffic congestion, noise, light pollution, and energy development. Increasingly, urban growth occurs from emerging issues; for example, utility privatization can potentially encourage land use development. Urban growth in close proximity to the IC/MF could lead to operational risks and might constitute health and safety threats (e.g., noise) to the community. Residential areas and places of public assembly, such as schools, churches, restaurants, theaters, and shopping centers, are often incompatible with Air Force activities when located in accident potential zones close to the IC.

A2.4.3.1. Specific encroachment examples include: incompatible development in safety zones; changes to land use planning and zoning near the IC/MF; and impacts associated with new development, including light pollution and traffic congestion. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the AICUZ Program and the Comprehensive Planning Program. The Primary Category for Urban Growth is: Compatible Use; the Secondary Category is: Competition for Resources.

**A2.4.4. Spectrum Encroachment.** Spectrum Encroachment, broadly defined, involves: 1) the use of the EM spectrum, whether in-band or near band, licensed or unlicensed, shared or exclusive; 2) in-band or near band noise of sufficient intensity and duration; 3) the authorized removal or reallocation of previously exclusive or shared mission critical bandwidth; or 4) the siting of structures that physically or electronically block or impede the line-of-sight necessary to successfully transmit or receive data. With few exceptions, military operations, training and testing rely heavily on the frequency spectrum; therefore, spectrum encroachment has the potential to inadvertently or unintentionally increase the risk of mission degradation, cancellation, or failure. The Air Force and other federal agencies share the EM spectrum and use radio frequency spectrum for communications, navigation, and other critical purposes. Spectrum regulations and allocations vary from nation to nation, which complicates Air Force use. Reallocation or commercialization of spectrum, increased

EM interference, and military–civil competition for limited bandwidth could constrain Air Force missions.

A2.4.4.1. Specific encroachment examples include, but are not limited to: radar and microwave line-of-sight conflicts; EM interference; increasing demand for commercial use of frequencies; and alternative energy development, such as small wind energy systems. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the AICUZ Program and the AFSIR Program. Because there are multiple aspects of spectrum encroachment, availability, and interference, there are two primary categories: Competition for Resources and Compatible Use.

**A2.4.5. Endangered Species and Critical Habitat.** Many IC/MFs are surrounded by urban development and often become the last, large undeveloped areas available for endangered species support; because of this, Air Force lands provide habitat for more than 300 federally-listed threatened and endangered species protected under the Endangered Species Act and the Migratory Bird Treaty Act. Installations are responsible for considering environmental problems (e.g., loss of habitat, pollution) that result in an increased number of threatened and endangered species and a decrease in habitat for these species. Installations must consult with the US Fish and Wildlife Service (USFWS) before taking any action that may affect a federally-listed threatened or endangered species, or result in the loss of critical habitat or ecological benefits. The USFWS may impose non-discretionary terms and conditions to protect threatened or endangered species, reducing flexibility for operations, training, and testing. Under this category, migratory pathways, wetlands and habitat fragmentation, and species at risk, such as federal candidate species and birds of conservation concern, would also be considered.

A2.4.5.1. Specific encroachment examples include, but are not limited to: the presence of endangered species or a negative biological opinion that could result in habitat restrictions leading potentially to the loss of training range access. Existing Air Force programs and offices that address this encroachment challenge area may include, but are not limited to, the Air Force Natural Resources Management Program and the Air Force Safety Center (AFSEC/SEFW) programs. The Primary Category for Endangered Species and Critical Habitat is: Environmental, Health, or Safety Regulatory Restrictions; the Secondary Category is: Competition for Resources.

**A2.4.6. Air.** Air pollution or opacity restrictions can affect Air Force operations. Operational readiness limitations can arise due to application of the Clean Air Act (CAA) to emissions generated on Air Force ICs. The two most common concerns are air quality conformity requirements and opacity rules. Compliance with the CAA requires that certain air emissions remain below National Ambient Air Quality Standards (NAAQS) set by the US Environmental Protection Agency (EPA). Areas which consistently violate the NAAQS because of anthropocentric activities are classified as nonattainment areas, and must implement a plan to reduce ambient concentrations below the maximum pollution standards. Maintenance areas are those regions where the NAAQS had previously been exceeded, but are now being met. CAA requirements established for regulating nonattainment or maintenance areas may restrict certain missions. In nonattainment and maintenance areas, general conformity requirements may result in limitations imposed on such activities to ensure they comply with State Implementation Plans. Opacity rules also can restrict or prohibit some training and testing activities (e.g., use of smoke, mounted maneuver training,

helicopter and drop zone training, or engine run-up activity) and can limit fire use prescribed for vegetation management. Opacity can be a sensitive issue with the public, especially near national parks, designated wilderness areas, and within urban centers.

A2.4.6.1. Specific encroachment examples include, but are not limited to: maintaining current emissions attainment levels and avoiding harmful emissions that affect air quality, evaluating the impact of future greenhouse gas emissions, and analyzing the potential for future carbon offsets regulations. The Air Quality Compliance and Resource Management Program, where implemented, is the primary program for addressing air issues. The Primary Category for Air is: Environmental, Health, or Safety Regulatory Restrictions.

A2.4.7. **Water.** Water restrictions on the Air Force or nearby communities result from a variety of issues, including quality, supply (i.e., quantity and availability), water rights, floodplains, infrastructure, and regulations. Water is an environmentally sensitive issue for the public on and near Air Force IC/MFs. Water rights, particularly in Great Plains and Southwestern states, are critical to mission sustainment; thus, it is imperative that the Air Force maintains all documents relating to water rights. The Clean Water Act (CWA) regulates pollutant discharges into the waters of the United States and gives the EPA and delegated states the authority to implement pollution control, such as setting water quality and pollutant standards and permitting requirements affecting wastewater and stormwater. The CWA has direct application to military lands, where certain munitions constituents, combat force effluents, and other contaminants may discharge into water sources protected by law. Range management and operations must conduct training and testing in accordance with applicable CWA requirements. Moreover, range sustainment must comply with the CWA by protecting rangeland surface waters from contaminants. This category also encompasses the Safe Drinking Water Act (SDWA) requirements and its effects on Air Force installations. The SDWA directly applies to installations that own or operate public water systems regulated by the EPA or states with delegated authority, and may affect military activities in wellhead protection areas or underground aquifers. Stormwater runoff, flooding, and impermeable surfaces are related challenges associated with this category.

A2.4.7.1. Specific encroachment examples include, but are not limited to: installation management of water infrastructure and supply, continued availability and security of potable water, and groundwater contamination as a result of pollution or depletion of aquifers. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the Water Quality Compliance Program, the Comprehensive Planning Program (for on-site issues), and the Air Force infrastructure management program. The Primary Category for Water is: Environmental, Health, or Safety Regulatory Restrictions; the Secondary Category is: Competition for Resources.

A2.4.8. **Cultural Resources.** Cultural resources include any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion, in the National Register of Historic Places, whether or not such eligibility has been formally determined. Cultural resources include all artifacts, records, and material remains related to such a property or resource. American Indian, Eskimo, Aleut, or Native Hawaiian sacred sites or traditional cultural properties are also a part of the general Cultural Resources inventory. Further, archaeological resources, artifact collections, and their associated records are protected under federal law. These cultural resources are common on Air Force IC/MFs, can restrict Air

Force operations, and are protected by federal laws, including the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. The National Historic Preservation Act directs the Air Force to conserve these resources and to consult with the State Historic Preservation Officer, federally recognized tribes, and other interested parties, on minimizing potential adverse effects of proposed activities on these resources. Requirements to preserve culturally significant resources may interfere with military activities, including, in some cases, training and testing, by limiting access to areas where these resources are found. Mitigation resulting from required consultations may lead to training workarounds or restrictions on operations and other activities deemed to have adverse effects.

A2.4.8.1. Specific encroachment examples include, but are not limited to: limited accessibility and potential mission restrictions associated with culturally significant sites within the IC/MF and the designation of historic districts or buildings. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the Cultural Resources Management Program and the Tribal Relations Program. The Primary Category for Cultural Resources is: Environmental, Health, or Safety Regulatory Restrictions.

**A2.4.9. Unexploded Ordnance and Munitions.** Munitions and Explosives of Concern (MEC) involve safety and environmental concerns (e.g., cleanup requirements, soil and water contamination) that are a consequence of Air Force mission activities. The three categories of MEC include: Unexploded Ordnance (UXO); Discarded Military Munitions; and munitions constituents present in a high enough concentration to pose an explosive hazard. Within the IC/MF, ranges and training areas are critical to the Air Force's ability to conduct realistic, live-fire training and weapon systems testing. Live-fire is, and will remain, the cornerstone of service training and testing; and, by necessity, deposits MEC and munitions constituents onto military lands. The Comprehensive Environmental Response, Compensation, and Liability Act, Resource Conservation and Recovery Act, the CWA, and the SDWA all have implications for the use of military munitions and management of MEC and munitions within the IC/MF (on ranges, for example).

A2.4.9.1. Specific encroachment examples include, but are not limited to: the presence of legacy munitions and their impacts on wildlife and environmental quality and the loss of range access due to the presence of UXO. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the Environmental Restoration Program (including the Military Munitions Response Program for cleanup of "other than operational" ranges) and the Comprehensive Range Planning Program. The Primary Category for Unexploded Ordnance and Munitions is: Environmental, Health, or Safety Regulatory Restrictions.

**A2.4.10. Marine Resources.** Marine Resources include the competition for ocean space by humans (e.g., through recreation or commercial uses) and wildlife that can compromise Air Force operations, training, or testing within the IC/MF. Regulatory compliance can complicate the Air Force's ability to sustain its mission in, over, and around the maritime environment. For example, the Marine Mammal Protection Act seeks to protect sensitive habitats and living marine resources. The Magnuson-Stevens Fishery Conservation and Management Act regulates marine fishery resources management in US federal waters. The Coastal Zone Management Act provides for management of the nation's coastal resources

and encourages states to develop and implement coastal zone management programs. These acts regulate Air Force operations in maritime environments. In July 2010, President Obama signed EO 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes*, establishing the National Ocean Council, which coordinates ocean regulation and management across governmental agencies, while setting the framework for zoning of off-shore uses. These acts in many cases require the Air Force to consult with other federal agencies (e.g., the National Marine Fisheries Service) and state regulators when a proposed action may affect a protected marine or coastal resource. The consultation process can result in potential mission constraints.

A2.4.10.1. Specific encroachment examples include, but are not limited to: the utilization of existing port channels for mission activities, competing stakeholder interests, and the effect of recreation interests on mission activities. The Air Force Natural Resources Management Program, where implemented, is the primary program for addressing maritime issues. The Primary Category for Marine Resources is: Environmental, Health, or Safety Regulatory Restrictions.

A2.4.11. **Energy Compatibility and Availability.** Potential energy compatibility conflicts include those from the development, siting, distribution, or transmission of energy resources, including energy. Insufficient coordination of energy and transmission development can cause encroachment and sustainment challenges for Air Force installations. These challenges include, but are not limited to, incompatible land use issues within the IC/MF or outlying mission-critical spaces, impacts to spectrum dependent systems (e.g., radars, microwave systems, and satellite communications systems), tall structures obstructing low-level flight training and testing, loss of habitat, and competition for water resources. Understanding the regulatory environment and the potential for energy resources within the IC/MF requires outreach to state and regional energy agencies and companies. This outreach will help Air Force installations anticipate and reduce impacts. Additionally, energy availability and the reliability and resiliency of the energy supply are primary concerns for installations where adequate power grid connectivity to energy resources is essential due to mission needs.

A2.4.11.1. Specific encroachment examples include, but are not limited to: the development of renewable energy, natural gas exploration, hydraulic fracturing, and the increase in energy transmission lines near the IC/MF. The OE/AAA Process, where implemented, is the primary Air Force program for addressing mission compatibility issues. DOD programs include the DOD Siting Clearinghouse. The Primary Category for Energy Compatibility and Availability is: Compatible Use.

A2.4.12. **Security/Safety.** Security encroachment occurs from actions compromising the security and safety of the IC/MF that also result in mission and community impacts (e.g., AT issues, Quantity Distance (QD) Safety Arcs, lines-of-sight or vantage points onto installations). The relative openness of an IC/MF increases exposure to security incidents (e.g., when undocumented aliens, transients, recreational users, or scavengers illegally enter ranges). To prevent internal encroachment from security challenges, installation leadership must work with tenants and higher headquarters to avoid security compromises.

A2.4.12.1. Specific encroachment examples include, but are not limited to: trespassers, gate and border security compromises for the installations, established AT processes, and QD arcs associated with the storage of explosive materials. Existing Air Force programs

that address this encroachment challenge area may include, but are not limited to: the Installation Vulnerability Assessment, Safety Program, and the Installation Real Property Program. The Primary Category for Security/Safety is: Security.

**A2.4.13. Natural Factors and Climate Effects.** Natural Factors and Climate Effects encompass weather or disaster events and related management (both short- and long-term) that affect nearby communities and Air Force installations. Examples of natural factors include: severe weather events (e.g., hurricanes, tornadoes, and wildfires), natural disasters (e.g., earthquakes), and coastal erosion. Examples of climate effects include insect population changes, invasive species propagation, sea level rise, and changes to drinking water quality and supply. This category also includes ecosystem management, which refers to any regulatory or legislative requirement directing installations to manage surrounding habitats or wildlife. All of these factors can compound existing stresses, such as population growth, land use changes, and pollution. Changing climates affect installation mission capabilities; for example, warmer climates could lead to earlier spring snowmelt and higher stream flows earlier in the spring season—and correspondingly lower stream flows during summer and fall—resulting overall in a reduced and less reliable water supply. Severe weather and disaster events affect installations and the public; for example, IC/MFs in proximity to coastal areas may be affected by rising sea levels, resulting in a loss of natural resources, flooding of low-lying lands, and potential degradation of tests and training mission capabilities or capacities caused by damage to, or loss of, operational areas and infrastructure.

A2.4.13.1. Specific encroachment examples include, but are not limited to: coastal flooding and erosion, increased presence of invasive species, and increased threats of climate impacts including wildfires, droughts, and severe weather. Existing Air Force programs that address this encroachment challenge area may include, but are not limited to, the Air Force Weather System, the Environmental Management System, the Critical Infrastructure Program, and the Air Force Natural Resources Management Program. The Primary Category for Natural Factors and Climate Effects is: Long-term Mission Sustainment.

**A2.5. Mission Constraints.** The degradation or elimination of certain operations, training, and testing within the IC/MF may affect the overall mission and readiness of the Air Force. The mission constraints described in this section represent some of the typical impacts or responses that may result from encroachment. The descriptions below will assist in understanding the severity of the mission impacts associated with each encroachment and sustainment challenge. Additionally, it is important to realize that constraints imposed on missions may exist as a way to reduce Air Force operational impacts (i.e., military encroachment) on communities, resources, or land owners. The requirement for these may be documented in Environmental Assessments, or Environmental Impact Statements and subsequent Records of Decisions, or as a part of the AICUZ, natural resource, or cultural resource management programs. Distinction between self-imposed ad hoc restrictions and formally agreed upon mitigations of Air Force impacts is important; IEMT members should be aware of the difference and the related impacts associated with each. Encroachment and sustainment challenges may result in combinations of multiple constraints, as defined below.

**A2.5.1. Creating Avoidance Areas.** Avoidance areas on installations or ranges, and underneath airspace, may be unavailable for training or operations permanently or

temporarily. These may include areas of endangered species breeding or nesting grounds, or areas of sensitive land uses, such as homes, ranches, farms, or National Parks, which require minimal noise impacts. Avoidance areas often impede ground troop activities and can degrade, inhibit, or impede the quality of training operations.

**A2.5.2. Reducing Usage Days.** Operations and training events can be restricted or prohibited on some days in some areas. For example, aircraft may not be able to operate in certain areas at specified times because of habitat restrictions, such as migratory bird patterns or the mating seasons of protected species.

**A2.5.3. Prohibiting Certain Operational, Training, and Testing Events.** Certain operations, training, and testing events may be prohibited. For example, ground troops may be prohibited from digging into the ground to create realistic fighting positions; aircraft may be prohibited from using flares or chaff; or ships may be prohibited from using sonar equipment. In these cases, the training must be conducted at other locations, or workarounds must be developed.

**A2.5.4. Reducing or Limiting Range Access.** Encroachment can reduce range access. For example, the approaches to target areas might be limited to certain specified corridors, rather than permitting access from multiple approaches. Such limitations may degrade the realism and value of the training event and could cause safety hazards, in certain circumstances.

**A2.5.5. Limiting the Use of New Technologies.** Concerns about encroachment may limit training or testing with new technologies. For example, encroachment may limit the Air Force's ability to conduct realistic testing or training with Remotely Piloted Aircraft, which are now a standard tool on the battlefield. Testing limitations could translate into limited application readiness in combat, as forces tend to apply technologies as they have in training, which might reduce the technology's full potential.

**A2.5.6. Modifying Operations.** Civilian use of higher altitudes, development on the ground, or noise sensitive areas like National Parks or wilderness areas, may result in the Air Force having to restrict flight altitudes, which reduces full airspace capability. In training, aircraft may be forced to fly at artificially low or high altitudes, which reduces realism, potentially causing negative practices that must be "unlearned" prior to actual combat. Flight minimums for approaches may be affected by the construction of large buildings or wind turbines, or flight tracks from the installation may be modified to avoid large residential areas or other noise sensitive land uses. Long Range Standoff Weapons test and training events are being unrealistically executed (truncated launch parameters, such as reduced platform altitude and speed) due to lack of sufficient range space.

**A2.5.7. Inhibiting Development of New Tactics.** By restricting maneuver areas, approaches to targets, altitudes, and certain technologies, the creative development of new tactics might be limited.

**A2.5.8. Restricting Night Time Flight Operations.** Operating at night is a critical component of Air Force operations. Nighttime operations and training (generally occurring between 2200 and 0700 local time – often referred to as "acoustic night") are essential to Air Force operational readiness. Nighttime (darkness conditions), however, is also the time when residents near Air Force installations are most especially sensitive to noise. Voluntary or mandatory restrictions that limit flight capacity exclusively to mission essential operations

during these hours may reduce impacts on the local community and foster better community relations, though they could pose critical limitations on essential training. The Air Force limits nighttime flying operations to essential missions.

**A2.5.9. Reducing Use of Live-Fire.** Encroachment from community development, threatened or endangered species, environmental regulations, and other natural factors can reduce opportunities for the use of live-fire ordnance, thereby reducing proficiency. While the use of simulations and inert ordnance can replace some live-fire training, training with live ordnance within the confines of secure training spaces remains essential for adequately preparing the Air Force for combat.

**A2.5.10. Increasing Temporary Duty for Training.** Encroachment may require increases in personnel tempo when forces must deploy away from their home station to receive effective training.

**A2.5.11. Increasing Costs or Risks.** Encroachment can increase costs in a variety of ways. Examples include, but are not limited to, transportation and other costs for units to train away from the home station when training there is encroached upon; fuel costs for aircraft training missions that must be aborted because of the occasional presence of natural wildlife in target areas or having to travel to ranges farther away; and the increased fiscal responsibility for installations to manage natural resource conservation projects, as mandated by federal laws.

**A2.5.12. Segmenting Training and Reducing Realism.** Encroachment may require sequential training events to be segmented. While these events naturally follow in sequence to mirror their occurrence in combat, segmentation of training reduces realism and, thus, degrades the value of training experiences. For example, aircraft might have to practice ordnance delivery and evasive maneuvers at different times, rather than sequentially or together. Ground forces might have to practice ship-to-shore maneuvers at one time and assaults on enemy positions at another.

**A2.6. Community Constraints.** External community stakeholders are the exclusive source for this section. One or more of these notional constraints was expressed by stakeholders during various external ICEMAP interviews. (Site-specific factors will determine whether an installation and its operations impose any actual community constraints.) Presenting the notional views of community members is intended to help understand community impacts associated with each encroachment and sustainment challenge area. While the Air Force cannot immediately alter public perception and sentiment, an understanding can be formed around these perceptions to strengthen relationships and work productively to resolve them together, when practicable, in appropriate engagement strategies.

**A2.6.1. Restricting Community Access during Military Exercises.** Communities may perceive negative impacts (e.g., health and safety concerns, security issues, or usage conflicts) associated with restricted military areas. For example, civilians may not be able to enter areas due to the presence of ground troops or be allowed to utilize cultural areas found on installations. They may also be prohibited from entering areas contaminated by on-site activities.

**A2.6.2. Restricting General Aviation.** Military SUAs or development on the ground may prevent the community from taking full advantage of airspace. General aviators may be

forced to alter flight patterns or schedules. These impacts could increase the costs or risks associated with civilian air travel or cause delays.

**A2.6.3. Limiting Community Development.** Certain types of community development may interfere directly with installation testing or training events. For example, energy development (e.g., wind turbines) could be restricted or prohibited by installation energy preferences or mission objectives (e.g., radar testing and training). Similarly, aircraft noise prevents certain land uses and, thus, restricts economic development. In these cases, the event or action must be conducted at other locations or eliminated entirely from the community. For example, in order to prevent negative impact to Night Vision Devices ground and air test and training operations, a “dark skies” ordinance can ensure only lighting that does not interfere with these operations is allowed in certain areas. Low-level routes and airfield approaches require limitations on structure heights and residential land use to ensure missions are not constrained due to Airborne Noise impacts.

**A2.6.4. Affecting Economic Development.** Communities may perceive negative economic impacts resulting from installation activities. While installation personnel typically provide additional revenue for local governments, businesses, and communities, and are often held as economic drivers and job providers, the adverse perception could spread within an IC/MF that installation activities limit the economic growth of surrounding communities by occasionally prohibiting an event or development that generates revenue.

**A2.6.5. Affecting Technology Use.** Communities may perceive or experience technology interference due to Air Force operations (e.g., garage door openers occasionally malfunction due to frequency interference from the installation). Similarly, communities may be unable to develop new technologies due to installation proximity and related security issues.

**A2.6.6. Straining Community Assets.** Installation personnel fluctuations (as a result of new or lost missions and changing command posts) may be viewed as having potentially negative impacts to community assets, such as services and infrastructure. Public services, including transportation, schools, and emergency response units, might be unable to effectively manage population turnovers. Traffic congestion, particularly along local roads leading to installation gates, can result in significant community constraints. Similarly, utility infrastructure systems may become inundated by installation use, thereby reducing the availability for adjacent communities.

**A2.6.7. Deteriorating Health and Wellness.** Communities may perceive new or increased health or safety risks in a variety of ways. These risks include, but are not limited to, noise, water, and air quality impacts. Similarly, stakeholders could begin to believe that aircraft operations can directly threaten lives and property.

**A2.6.8. Reducing Availability of Resources.** Communities may be forced to compete with installations for resources (e.g., clean water, reliable electricity, transit infrastructure, or air and land space). Installation management of resources could exacerbate current issues (such as ineffective stormwater management) or create new problems (such as erosion associated with dredging projects).

### Attachment 3

#### NOTIONAL EXTERNAL ICEMAP CONTENTS

**A3.1. External ICEMAP Development.** The external study includes a comprehensive literature review, installation and community interviews, and a thorough analysis of encroachment and sustainment challenges at the installation. External study teams should utilize the guidelines below while conducting the study and developing the external ICEMAP, which is a suite of three documents: Volume I: The Action Plan, Volume II: The Reference Book, and, when appropriate, Volume III: The Community Brochure. The following sections detail the outline and content suggested for the external ICEMAP documents. Internal ICEMAP guidance is posted to the AFEM SharePoint site.

**A3.2. ICEMAP Volume I: Action Plan.** This document is intended for internal use only and provides recommendations to reduce the impacts of encroachment and sustainment challenges on specific Air Force IC/MFs and communities. The target audience for the Action Plan is the installation commander, the IEMT, and any additional organizations that have responsibilities to address specific elements of encroachment. The Action Plan summarizes current mission operations and encroachment and sustainment challenges (current and potential), and prioritizes installation encroachment challenges and Management Actions described in detail in the Reference Book (see below). The Action Plan shall be marked “For Official Use Only” in accordance with AFI 31-401, *Information Security Program Management*. The Action Plan contains deliberative process information which is exempt under the Freedom of Information Act, 5 United States Code § 552, (b)(5), as intra-agency advice, opinions, suggestions and recommendations, as well as subjective evaluations, all of which relate to the decision-making process for encroachment management. Government interests in these materials include, among other details, information of a speculative or evaluative nature into land use compatibility and information of inquiries, inspections, surveys, and other investigations into the safety, security, internal management, or operation of IC/MFs. Other exemptions and legitimate government interests may apply.

**A3.2.1. Action Plan Contents.** The Action Plan includes the ICEMAP Overview, Encroachment Condition Summary, the Installation Encroachment and Sustainment Summary (for all challenges rated “yellow” and above), the Management Action Summary (including the Commander’s Functional Engagement Plan), and the Geographic and Operational Context (including thorough descriptions of the IC/MF and Current Mission Operations).

**A3.3. ICEMAP Volume II: Reference Book.** This document is also intended for internal use only and is accordingly marked “For Official Use Only.” It provides a comprehensive summary and evaluation of installation-specific information (e.g., situational awareness of mission, IC/MF, host units, and tenants) and provides suggested actions to reduce current and prevent potential encroachment to both IC/MFs and local communities. The Reference Book includes the Compatible Land Use Strategy (CLUS), an evaluation of land associated with mission priorities, which, if developed incompatibly, could result in mission impacts. The CLUS provides a prioritized list of land parcels along with a variety of compatibility strategies ranging from land use planning to encroachment partnering to fee simple acquisition. All of the detailed analysis contained in the Reference Book is summarized in the Action Plan. The Reference Book shall be marked “For Official Use Only” in accordance with AFI 31-401. The Reference Book contains

deliberative process information which is exempt under the Freedom of Information Act, 5 USC §552, (b)(5), as intra-agency advice, opinions, suggestions and recommendations, as well as subjective evaluations, all of which relate to the decision-making process for encroachment management. Government interests in these materials include, among other things, the CLUS and such other matters as proposed plans to procure, lease, or otherwise acquire and dispose of real estate or facilities, the disclosure of which would provide undue or unfair competitive advantage to private personal interests or would impede legitimate government functions. Premature release of this information is likely to affect the Air Force's negotiating position. Other exemptions and legitimate government interests may apply.

**A3.3.1. Reference Book Contents.** The Reference Book consists of the ICEMAP Overview, Management Action Summary, eight unique chapters, and relevant appendices. The eight chapters of the ICEMAP are described below.

A3.3.1.1. Chapter 1: Installation Complex / Mission Footprint: describes the IC (including background information and a description of each IC area), the MF (including a description of each MF area), and the ROI (including an overall description of the ROI).

A3.3.1.2. Chapter 2: Internal Context: provides information on the Units (host and major tenant Units), Current and Future Operations (including Current Operations/Essential Missions and expected/potential Future Operations), and On-Base Ecosystem Services Opportunities which highlights a site-specific study of Endangered Species and Critical Habitat.

A3.3.1.3. Chapter 3: External Context: begins with an overview of the ROI, including local government and population and growth trends. Chapter 3 then describes the economic interests of the installation, including state-level economic impact and value of the state's military activity, and the local and regional economic significance of the installation. Chapter 3 also includes information on stakeholder relationships, which is followed by descriptions of the current and potential infrastructure trends within the ROI (including aviation, highways, public transportation, water and sewer, communications, energy, and any others that would affect the IC/MF). The next section of Chapter 3 describes state and federal regulatory processes that are relevant to the installation, including those related to airspace, EM spectrum, the environment (including air quality, water, hazardous waste, climate change, and energy), and state community and military compatibility guidelines. The final two sections of Chapter 3 include descriptions of environmental stewardship interests and local sustainability.

A3.3.1.4. Chapter 4: Encroachment Condition Summary and Mission Sustainment Analysis: consists of the Encroachment Condition Summary Overview, Mission Sustainment and Mission Constraints Analysis Overview and Summary, and complete descriptions of the 13 encroachment and sustainment challenges prioritized for the installation. Each challenge area includes the corresponding current and potential challenges and separate encroachment condition summaries for each challenge identified.

A3.3.1.5. Chapter 5: Compatible Land Use Strategy (CLUS): begins with contextual information about the installation's real property interests (land it owns, leases, or has easements for). The next section describes the CLUS methodology of parcel prioritization. This includes analyses of local areas, mission priorities (including

AICUZ), and environmental stewardship; away-area mission priorities and environmental stewardship; and a MF analysis. The next section describes the feasibility factors used to rank parcels. It outlines the feasibility factor methodology used to analyze zoning compatibility, land use and development, transportation and utilities, and other related factors, resulting in a composite analysis. The final section details strategies for achieving compatible land use on high-priority parcels and land areas, which includes a conservation analysis and a mission–conservation nexus analysis that identifies potential opportunities for encroachment partnering projects. Note: This chapter does not apply to overseas installations.

A3.3.1.6. Chapter 6: Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis: takes the overall, actual and perceived, position of the installation within the local community into account, and produces summative analyses for each of the subject categories.

A3.3.1.7. Chapter 7: Management Actions: listed in prioritized order.

A3.3.1.8. Chapter 8: Engagement Strategy: begins with an introduction and background on the strategy structure. Chapter 8 then includes the Mission and Vision, the AFEM Framework, the Engagement Strategy Implementation and Sustainment, Roles and Responsibilities (IEMT, Engagement Strategy Subcommittee, and Internal Coordination), Themes and Messages, Stakeholder Analysis and Prioritization, Stakeholder Engagement Methods (Engagement Guidelines and Challenge Response), Functional Engagement Plans (Management Actions), Functional Engagement Plans (Relationship Building), and a Conclusion.

A3.3.1.9. Appendices. The Appendices for the Reference Book may include, but are not limited to, Acronyms, Encroachment Terms Glossary, Stakeholder Interview Lists (Internal Interviews and Community Interviews), Encroachment Declaration, Local Government, comprehensive CLUS methodology, Conservation Partner Capabilities (for potential local, state, regional, federal, and national partners), Parcels in Clear Zone and Estimated Cost to Acquire (including a parcel inventory), Complete IC/MF Stakeholder Matrix, Engagement Strategy, Ecosystem Services, Greenhouse Gas Emissions Management Implications for Air Force Installations, and References.

**A3.4. ICEMAP Volume III: Community Brochure.** This document is intended for public release and provides background information to the community on the AFEM Program, primary mission and requirements, the IC/MF, the ICEMAP, and top-ranking encroachment and sustainment challenges. Identifying the specific airspace in an installation's IC/MF, the Community Brochure includes a community overview and review of a selection of the encroachment and sustainment challenges affecting the community that were identified through interviews with primary community stakeholders. IAW AFI 35-102, *Security and Policy Review Process*, this document shall go through the Security and Policy Review Process to ensure the right level of command reviews and approves the content. This document does not apply to overseas installations.

A3.4.1. Community Brochure Contents. The Community Brochure includes an Introduction section (providing background information on the community, economy, mission of the installation, and environment), a Community Overview, an Installation Overview, and a Shared Interest/Shared Action section that describes specific challenge areas. The back cover

of the Community Brochure provides an AFEM overview and the installation's appointed point of contact.