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AIR FORCE GLOBAL STRIKE  
COMMAND**

**AIR FORCE GLOBAL STRIKE  
COMMAND INSTRUCTION 10-706**

**13 SEPTEMBER 2018**



**Operations**

**ELECTRONIC ATTACK TRAINING  
AND EMISSIONS CONTROL (EMCON)  
PROCEDURES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 10-7, *Information Operations*, and Air Force Instruction (AFI) 10-706, *Electronic Warfare (EW)*. It defines and establishes procedures for accomplishing electronic attack (EA) training activity. This instruction outlines Air Force Global Strike Command's (AFGSC) EW Emissions Control (EMCON) policy (Chapter 5) which applies to all AFGSC wings and gained units accomplishing active EA training. This instruction applies to all AFGSC wings, gained units and operating locations. It is applicable to Air National Guard (ANG) and Air Force Reserve Command (AFRC) units and members. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, **Management of Records**, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Contact supporting records managers as required. Recommendation for Change of Publication, send comments and suggested improvements to this publication on AF Form 847, **Recommendation for Change of Publication**, through channels, to AFGSC/A3T, 245 Davis Ave., Suite 333, Barksdale AFB LA 71110. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, Publications and Forms Management, 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.

### ***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. Major changes include: Command relationships, rolls and responsibilities, training focus, systems evaluations, and information sharing and contact information.

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## Chapter 1

### ROLES AND RESPONSIBILITIES:

**1.1. General.** This chapter defines the roles and responsibilities of those responsible for electronic warfare operations at various levels of command. These requirements and responsibilities directly affect EA Training and EMCON.

1.1.1. For the purposes of this instruction, the term Electronic Warfare Officer (EWO) refers to any qualified B-1 Weapons System Officer, B-52 Electronic Warfare Officer, or a B-2 pilot who is training or operating equipment in a defensive role. For staff purposes, this document defines an EWO as a rated officer (typically who has graduated from the Undergraduate Combat Systems Officer (CSO) Course), or in the case of aircraft that does not have a CSO (i.e. B-2), it is someone who has graduated from the basic EW course (or equivalent) and the Electronic Warfare Coordinator's Course (EWCC) and has the skills necessary to perform an electronic warfare planning role.

1.1.2. ACC is the CAF lead for all CAF training ranges, to include all Primary Training Ranges (PTRs) and Electronic Scoring Sites (ESSs). Per the CTR Charter, CAF training range oversight is through the Combat Training Range (CTR) board, chaired by ACC, of which AFGSC is a voting member. AFGSC/A3T is the focal point for all training range and OTI issues, to include range clearances and guidance, and is responsible for coordinating with ACC/A3A for problem resolution. Additionally, AFGSC/A3TO will coordinate range issues/inputs from WEPTAC, RTRB, and OTI meetings. (T-2)

1.1.3. Airspace and Range Conference. ACC/A3A holds an annual Airspace and Range Conference to ensure the widest dissemination of current Airspace and Range information. AFGSC/A3T will send representation to present MAJCOM range issues. AFGSC wings should also consider sending their Wing EWO, a suitable representative from their Wing Weapons Office, or OTI SME. (T-2)

### 1.2. Commanders at All Levels:

1.2.1. Maintain EW combat readiness by ensuring AFGSC wing personnel receive realistic training on EW equipment, EW equipment operations, in-flight EW focused scenarios, as well as conducting EW focused ground simulator missions on a regular basis. Also, commanders should to the maximum extent possible attend the CAF Weapons and Tactics Conference (CAF WEPTAC) to obtain Exercise Commander/staff experience in areas emphasizing EW employment. CAF WEPTAC is administered by ACC/A3TW and normally includes an EW workgroup. Workgroup participants usually include representatives from the 53d Electronic Warfare Group (EWG), wing EWOs, wing weapons officers, and unit leadership members.

1.2.2. Deploy available EW assets; including support equipment, simulators, and expendables on unit deployments, when possible.

1.2.3. Identify intelligence requirements and ensure intelligence integration into EW training programs.

### 1.3. Air Force Global Strike Command (AFGSC) Director of Operations and Communications (AFGSC A3/6):

1.3.1. Appoints a MAJCOM-level EWO responsible for the standardization and implementation of EW programs and procedures across all bomb wings under AFGSC.

1.3.2. The MAJCOM EWO provides the following to AFGSC A3: (T-2)

1.3.2.1. Acts as the focal point for all AFGSC supplemental regulations to Air Force, Joint, and governmental electronic warfare publications and regulations.

1.3.2.2. Works with the AFGSC frequency management office to ensure approval to operate in the electromagnetic spectrum is authorized IAW CJCS and Air Force directives. (T-1 for all outside CJCS and AFI requirements)

1.3.2.3. Ensures standardized TTPs and EWIR procedures across the multiple bomb wings commensurate with the needs of each platform. To facilitate the dissemination of information, he or she will maintain both a NIPR & SIPR SharePoint: <https://cs.eis.af.mil/sites/10963/dir/a3/a3t/a3tw/ew/sitepages/home.aspx>  
<https://intelshare.intelink.sgov.gov/sites/561jts/warfighter/ew/SitesPages/Home.aspx>.

1.3.2.4. Works with the 53d WG and AFGSC bomb wings to ensure proper, timely, system updates, and procedural implementation.

1.3.2.5. The MAJCOM EWO provides operator needs and requirements for A5 to aid in the upgrades and sustainment of the AFGSC bomber force.

1.3.2.6. Assists AFGSC A3/6 with all duties and responsibilities as outlined in this regulation and as directed by all other pertinent electronic warfare regulations and publications.

1.3.3. Develops EW training concepts and operational use of aircrew training devices in support of weapon system training programs as well as ensures EW configurations in aircrew training devices are compatible with aircraft configurations.

1.3.4. Provides EW expertise to AFGSC/A3TO (Range and OTI Managers) to ensure part-task trainers, aircrew training devices, and ACC EW ranges are integrated into a cohesive EW training system.

1.3.5. Provides AFGSC range requirements to ACC EW ranges via the Electronic Warfare Working Group (EWWG)/Program Improvement Working Group (PIWG) to ensure a realistic environment capable of supporting established combat readiness training requirements. Any OTI requirements are also coordinated through AFGSC/A3TO.

1.3.6. Will assist the Lead Command, ACC, with the sustainment of multi-platform common EW Systems, to ensure interoperability and standardization in training and operational concepts of fielded EW systems. (T-2)

1.3.7. Will assist the Lead Command, ACC, in initiating an overall EW range development strategy IAW AFI 13-212. (T-2)

1.3.8. Develops concepts and procedures for the command and control of EW assets.

1.3.9. Identifies and documents EW training system deficiencies, updates requirement documents, and recommends actions to correct deficiencies.

1.3.10. Ensures EW training requirements are incorporated in applicable publications to include formal training and advance course syllabi and 10/11-series publications.

1.3.10.1. Attends, or sends, a qualified representative to the CAF EW Working Group for Wing EWOs on an annual basis.

1.3.10.2. Attends, or sends a qualified representative to, each annual CAF EW Working Group conducted by USAFWC (as applicable).

1.3.10.3. Coordinates and reviews ground and airborne EW training programs.

1.3.10.4. Determines EW training deficiencies and formulates/distributes solutions.

1.3.11. Ensures EW is an integral part of combat operations, contingency plans, and training exercises.

1.3.12. Ensures AFGSC Emission Control (EMCON) procedures to prevent the interception and exploitation of AFGSC aircraft, EW radiations, and tactics.

1.3.13. Ensures all AFGSC EW programs are in line with AF EW Vision 2030, or applicable follow-on AF and joint memorandums (i.e. USAF EW/EMS Superiority Roadmap).

1.3.14. Directs and coordinates approval for the use of operational and training EW mission data software for training, exercises, and operational missions in coordination with AOR specific guidance and instructions, AOR foreign disclosure officer reviews addressing EMCON concerns, and geographic COCOM EW offices where applicable.

1.3.15. Directs inputs for new tactics, or tactics development, to the appropriate center. Ensures EW tactics are adequately tested and integrated into training and combat plans. Ensures these tactics are incorporated in applicable volumes of the Air Force Tactics, Techniques, and Procedures (AFTTP) 3-1 volume set.

1.3.16. Ensures procedures for EW training are established and published for conducting EW training, and providing feedback (as applicable).

1.3.17. In coordination with AFGSC/A3X, ensures EW training and assessments are incorporated into AFGSC attended FLAG and LVC exercises to the maximum extent possible.

1.3.18. Ensures frequency clearance requests for EW equipment operational checks are submitted IAW the most current CJCSM 3212.02.

#### **1.4. AFGSC Logistics Directorate (AFGSC/A4):**

1.4.1. Provides maintenance capability to support unit allocation of EW equipment, to include deployed and bare base operations.

1.4.2. Ensures maintenance personnel is adequately trained.

#### **1.5. AFGSC Plans and Requirements Directorate (AFGSC/A5/8):**

1.5.1. Establishes acquisition requirements and modifications for all aircraft and aircrew training devices.

1.5.2. Documents EW system deficiencies during the acquisition process and takes action to correct deficiencies in conjunction with A3 identification.

1.5.3. Since ACC is the lead command representative for the acquisition and upgrade of EW systems, AFGSC/A5 assists in this process. This ensures aircraft interoperability and

standardization in regards to training concepts, materials, requirements for acquisition or modification of systems, and reprogramming efforts.

1.5.4. Develops, evaluates, and monitors requirements documents for AFGSC EW systems and support equipment.

1.5.5. In coordination with A3T, ensures requirements for new simulators and other training devices include EW systems and support equipment.

1.5.6. Assists ACC, which acts as the lead command, with the development of the EW Capabilities Assessment Plan, which includes the Capabilities Area Description and Capabilities Planning Guidance.

#### **1.6. Component Numbered Air Forces (NAFs):**

1.6.1. Act as the focal point for Joint Suppression of Enemy Air Defense, Information Operations tactics, concepts of operation, campaign plans, and air tasking order development efforts for their Area of Responsibility (AOR).

1.6.2. Manage EW aircraft and self-protection system deployment and support issues for their AOR.

1.6.3. Oversee operational and exercise EW system reprogramming efforts for units deployed to their AOR.

1.6.4. Coordinate frequency deconfliction efforts for their AOR.

1.6.5. Provide inputs to Exercise/Operational Plan EW appendices for their AOR.

1.6.6. Coordinate intelligence support for EW planning for their AOR.

1.6.7. Identify EW manpower requirements for deployment manning documents.

1.6.8. Coordinate EW activities with allied nations in support of exercises and contingency operations within their AOR.

1.6.9. Submit requests for allocations of AFGSC EW course quotas for NAF headquarters personnel to AFGSC.

#### **1.7. Wing Electronic Warfare Officer: (T-3)**

1.7.1. The Wing EWO position is the term used for those officers fulfilling the role as their Wing's EW point of contact. This position may also be held at the group or squadron level, but the term is used for only one EWO position at the highest echelon assigned an EWO position within a given wing. There can also be Group/Squadron EWOs who perform similar functions as the Wing EWO, but these EWOs focus their efforts on their organization and work directly with their Wing EWO. With regards to standardization and implementation of TTPs, Group and Squadron EWOs will align their policies and procedures with those laid out by the Wing EWO.

1.7.2. The Wing EWO duty will be performed by an EWO or a Defensive Systems Officer (DSO). If an EWO or DSO is not available, either due to manning or crew force compliment, a pilot with the required training and expertise in electronic warfare may be appointed.

1.7.3. The Wing EWO is the best-qualified individual to fulfill the duties of implementing AFI 10-706, AFI 10-703, aircraft-specific series EW requirements, and this instruction.

1.7.3.1. The Wing EWO will be the graduate of the appropriate training course(s):

1.7.3.1.1. B-2 Wing EWOs will be a graduate of the Electronic Warfare Coordinator Course (SV8ES) or equivalent. If appointed Wing EWO prior to completing EWCC, newly assigned Wing EWOs will attend at the very earliest possible opportunity.

1.7.3.1.1.1. Squadron EWOs should attend the Introduction to Electronic Warfare Course (BV7CE). Any pilot holding the position of Wing, Group, or Squadron EWO will also be a graduate of this course.

1.7.3.1.2. B-52 Wing EWOs will be EWOs for B-52s. Wing EWOs will be a graduate of the EWCC (SV8ES) or equivalent. If appointed Wing EWO prior to completing EWCC, newly assigned Wing EWOs will attend at the very earliest possible opportunity.

1.7.3.1.3. B-1 Wing EWOs will be a qualified WSO for the B-1s. Wing EWOs will be a graduate of the EWCC (SV8ES) or equivalent. If appointed Wing EWO prior to completing EWCC, newly assigned Wing EWOs will attend at the very earliest possible opportunity.

1.7.3.2. Group and Squadron EWOs will be EWOs or DSOs, with the exception of B-2 pilots who have successfully completed the required training mentioned in [1.7.3.1.1.1](#).

1.7.4. It is essential for Wing EWOs to possess a higher level of strategic and tactical knowledge and understanding. Therefore, the Wing EWO should attend the following courses offered at Maxwell AFB:

1.7.4.1. CWPC: 2 week class on Contingency warfighter planning.

1.7.4.2. IOFAC: 1 week intro course to IO Warfare.

1.7.4.3. JAOPC: 2 week class on Joint Air Operations Planning.

## **1.8. AFGSC Wings/Groups: (T-3)**

1.8.1. Where authorized manpower positions, or authorized variances, exist; appoint a Wing/Group EWO position within the operations support squadron (OSS), tactics and training flight (OSK or equivalent). The Wing EWO will be the Wing's single point of contact for EW matters. Where authorized manpower positions, or authorized variances, do not exist; a Wing/Group EWO should be assigned as an additional duty within the OSS to act as the Wing's single point of contact for EW matters. If assigned as an additional duty, the Wing EWO will be the only additional duty performed by this individual. Commanders should consider a potential person's workload prior to assigning him or her the additional duty. Individuals who will be routinely tasked with higher priority taskings, such as weapons officers, may not be the most suitable person for the job based on the amount of time required to adequately fill the Wing EWO position.

1.8.2. Where possible, an alternate Wing EWO should also be assigned to ensure continuity during deployments, contingencies, exercises, etc. Where no Wing structure exists, Group/Squadron EWOs will assume Wing/Group EWO responsibilities. Wing/Group EWOs should attend the annual CAF WEPTAC conferences, and it is highly encouraged that Squadron EWOs attend. The CAF WEPTAC is administered by ACC/A3TW.



1.8.3. To view allocations for AFGSC EW courses visit the AFGSC A3T Formal Training SharePoint site at <https://cs.eis.af.mil/sites/10963/dir/a3/a3t/a3ta/quota%20mgmt/sitepages/home.aspx>. If unable to access the SharePoint, AFGSC Wing Training Managers should request a list from the MAJCOM EWO in A3TW. To fill class vacancies, Wing Training Managers should submit a prioritized list of their respective Wing's nominations to AFGSC/A3TA via the MAJCOM EWO.

### **1.9. Wing EWO Duties: (T-3)**

1.9.1. Establish EW programs closely associated with the unit's weapons and tactics program and designed to keep unit members current on threats and tactics.

1.9.2. Through close coordination with Group and Squadron stan/eval offices, training flights, and weapons and tactics flight, establish guidelines and directives, governing procedures, training, and administrative procedures for EW programs.

1.9.3. Monitor and identify all deficiencies particular to EW and inform Group and Wing leadership of these deficiencies. Deficiencies will also be reported to the MAJCOM through the MAJCOM EWO, or A3TW if no MAJCOM EWO position exists.

1.9.4. Conduct the unit EW program. Overall program management will be the responsibility of the OSS. With squadrons deploying as individual units, the Squadron EWO must be prepared to manage the squadron assets and training programs, within Wing/Group guidance and directives, for independent operation when deployed. A continuity book will be developed and maintained to allow seamless assumption of duties due to deployments or PCSs. The master Wing EWO continuity book should be maintained on computer storage media, as well as in hard copy format.

1.9.5. Manage and prepare guidance for the unit EW programs to include applicable training, tactics development, and employment IAW AFI 11-2MDS volume sets and this instruction.

1.9.6. Maintain a reference library of applicable manuals, instructions, tests, EWIR message traffic, IG reports, and a current list of operations and training for each wing/group/squadron assigned EW systems. Provide periodic listings of available reference documents to unit members, instructors, and maintenance personnel. Ensure aircrews are informed of current EW equipment capabilities via all source materials (i.e. PW messages, test plans/reports, EC Mission Guides, System Handbooks, and AFTTP publications).

1.9.7. Coordinate with the unit training officer and unit intelligence personnel to develop lesson plans for EW academics, simulator training, and flying instruction. Programs should be maintained for initial qualification, continuation/refresher training, instructor upgrade, and verification/certification training IAW AFI 11-2MDS volume sets.

1.9.8. Conduct periodic meetings to coordinate EW efforts of Wing/Group/Squadron EWOs, maintenance, and intelligence.

1.9.9. Establish and coordinate unit weapons and EW range flight profiles with OSS/OSK and range operations personnel. Coordinate with AFGSC/A3T assistance when outside coordination is required for range modifications.

1.9.10. Monitor the progress of EW academic, simulator, hands-on, and flying training. Ensure adequacy of training and that the appropriate documentation is accomplished. (When

able) The Wing EWO should be a flight evaluator, or as a minimum an experienced instructor, to ensure the adequate accomplishment of training and mission accomplishment oversight.

1.9.11. Coordinate requirements for electromagnetic spectrum frequency clearances and aircraft equipment configurations with the MAJCOM EWO, or appropriate office in AFGSC A3T, for EW training programs IAW the most current edition of CJCSM 3212.02.

1.9.12. Assist sponsored AFRC units to conduct EW training, as required.

1.9.13. Ensure all available training assets (internal, ranges, and "FLAGS") are utilized to the maximum extent possible.

1.9.14. Act as the Wing focal point for Electronic Warfare Integrated Reprogramming (EWIR) procedures IAW AFI 10-703. When MAJCOM guidance lacks, develop and implement local procedures for alerting appropriate personnel of reprogramming changes and for coordinating and implementing those changes. Chair and hold regular meetings and exercises among those designated across the BW as part of the EWIR action team.

1.9.15. Ensure AFGSC and reprogramming centers are periodically updated on current POCs for EWIR (PACER WARE/SERENE BYTE) message traffic and data. Develop and implement procedures for use of the Multi-Service Data Distribution System (MSDDS), or the current data distribution method, ensuring that EWIR data is updated as frequently as required.

1.9.16. Maintain MSDDS account, or access to whatever electronic means is used to transfer electronic mission data, IAW AFI 10-703.

1.9.17. Maintain EW equipment fault trend analysis in coordination with avionics maintenance personnel and brief aircrews on corrective operational procedures. Identify and report deficiencies in EW equipment and normal operation procedures to AFGSC/A3TW, MAJCOM EWO.

1.9.18. Interact with scheduling and maintenance to ensure aircraft reflect required configurations for EW training/ranges, in-flight equipment checks, and training exercises.

1.9.19. Ensure unit electromagnetic interference incidents are investigated and reported. Accomplish reports IAW AFI 10-707, Spectrum Interference Resolution Program, and coordinate with the installation spectrum manager.

1.9.20. Ensure requests for jamming and chaff clearances for operational checks of EW equipment are submitted through AFGSC/A3TW, who will then coordinate IAW CJCSM 3212.02, Performing Electronic Attack in the United States and Canada for Tests, Training, and Exercises. For OCONUS operations, in addition to CJCSM 3212.02, ensure theater-specific procedures are followed.

1.9.21. Participate in cross talks/communication with the AFGSC MAJCOM EWO and other AFGSC WG EWOs to ensure standardization and coordination of Tactics, Training, and Procedures across the command.

1.9.22. Attend Weapon System Reviews and Program Working Group (PWG) meetings.

## Chapter 2

### ELECTRONIC WARFARE (EW) TRAINING:

**2.1. General.** This chapter delineates EW training requirements for all AFGSC units.

**2.2. EW Operational Training Concept.** The primary goal for EW operational training is to TRAIN LIKE WE INTEND TO FIGHT by maintaining a high state of readiness through active and integrated EW training programs. This applies to all aircrews and logistics support personnel assigned to AFGSC and the AFRC units. Airpower will be tasked into threat environments ranging from permissive to intensely hostile. Our EW capabilities must be available to provide self-protection survivability of personnel and aircraft systems and we must also be able to operate in the face of an adversary who is employing EW against our forces.

2.2.1. "TRAIN LIKE WE FIGHT" by striving to use all forms of EW systems (i.e. chaff, flares, RWRs, etc.) thus performing EW activity on every combat training sortie, to the maximum extent possible when conditions and training allows. Training should also strive to create scenarios that expose EWOs to as wide an array of threats as possible. Training should be focused on combat expectations and not just passing a check ride.

2.2.2. Where shortfalls exist (i.e., training requirements, ranges, EW equipment, EW software/Mission Data (MD), etc.) which do not allow the performance of EW training activity, identify these shortfalls to the MAJCOM EWO or AFGSC/A3TW for resolution.

2.2.3. Initial and continuation EW training will be incorporated into peacetime training programs and exercises at all levels of command to ensure the maximum degree of readiness. (T-2)

2.2.4. The unit commander is responsible for the unit's EW training program, to include academic instruction, controlled hands-on environment training (e.g., simulators, part-task trainers, training aids, etc.), deployment preparation training, and flying training.

2.2.5. Specialized EW courses should be used to ensure the standardization of EW instruction at the wing, group, and unit levels.

### 2.3. Aircrew EW Training: (T-3)

2.3.1. All aircrews will be trained in enemy threat environment capabilities and maintain proficiency in the operation of EW equipment tactics, techniques, and procedures (TTPs). Training will consist of a mix of ground, simulator, and flying training (focused on the unit's mission and wartime OPLAN taskings).

2.3.2. EW training programs must be conducted on a regular basis. Training requirements will be as directed in aircraft specific 11-series publications and Ready Aircrew Program (RAP) tasking.

2.3.3. EW Instructors. The Wing or Group/Squadron EWO is responsible for ensuring EW academics are taught by only the most highly qualified instructors in that EW area of expertise. EWOs identified as academic instructors will be upgraded according to the appropriate procedures in the aircraft-specific AFI 11-2MDS volume set and applicable MDS syllabi. Personnel other than EWOs identified as unit EW academic instructors should be fully qualified IAW this instruction.

2.3.4. Training Scenario Expectations: Training scenarios should be consistent with the tactical focus prescribed by Squadron leadership, through a SQ/CC approved training plan. Wing, Group, and Squadron leadership all have a responsibility to ensure training encompasses a variety of threats related to current and legacy threat systems, as well as expected AORs, deployment locations, or C-NAF expectations. Wing EWOs will work with the Weapons and Tactics Flights, Training Flights, and Stan/Eval to ensure an adequate level of EW training, both in quantity and complexity, is accomplished to meet combat readiness needs.

## Chapter 3

### PROCEDURES FOR CONDUCTING EA TRAINING:

**3.1. General.** This chapter establishes procedures for accomplishing EA activity against Electronic Scoring Site facilities and Electronic Combat Ranges. It applies to all AFGSC wings and gained units participating in active EA training activity.

#### **3.2. Responsibilities:**

3.2.1. Wing/Groups/Squadrons must ensure that:

3.2.1.1. All crewmembers conducting EA are familiar with CJCSM 3212.02, AFTTP 3-1 (appropriate volumes), AFI 11-215, AFI 11-2MDSV1, this instruction, applicable AFGSC and ACC supplements, and applicable EA system handbooks.

3.2.1.2. EA activity is conducted according to this instruction.

#### **3.3. Terms and Equipment:**

3.3.1. Electronic Scoring Site (ESS) Activities:

3.3.1.1. For EA types of runs to be accomplished at an ESS, PTR, MOA (that can receive ESS generated threat signals), or in a simulator refer to AFI 11-2B-MDSV1, Attachment 1. Ranges/ESSs are equipped with MUTES, Mini-MUTES, Joint Threat Emitter (JTE), or any combination of ESS equipment listed in **3.3.2.** and are designed to provide aircrew training against airborne interceptors, SAMs, ADA, EW/GCI, naval threats, U.S. and western threats, or dense combinations of these threats/radar systems.

3.3.2. ESS Equipment:

3.3.2.1. **Note:** Not every ESS has every single piece of equipment listed below. See range guides for specific range capabilities.

3.3.2.1.1. AN/MST-T1A Multiple Threat Emitter System (MUTES).

3.3.2.1.2. AN/MST-T1 (V) Miniature-Multiple Threat Emitter System (Mini-MUTES).

3.3.2.1.3. AN/VPQ-1 Tactical Radar Threat Generator.

3.3.2.1.4. AN/MSQ-T43 (V) Multi-Threat Emitter (MTE).

3.3.2.1.5. AN/FSQ-T34 Joint Threat Emitter (JTE).

3.3.2.1.6. AN/FSQ-T34 Wide Band Joint Threat Emitter.

3.3.2.1.7. AN/MPS-T1 Band Simulator.

3.3.2.1.8. AN/TPT-T1 Unmanned Threat Emitter (UMTE).

3.3.2.1.9. AN/UPQ-8 Radar Warning Receiver Low Cost Threat Emitter.

3.3.2.1.10. ARTSv1: Strategic Long Range Advanced Radar Threat System.

3.3.2.1.11. ARTSv2: Tactical Advanced Radar Threat System.

3.3.2.1.12. ARTSv3 v4 v5: TBD.

### 3.3.3. ESS Threat Simulation:

#### 3.3.3.1. ADA Threats. The ESS has the following options for ADA simulation:

- 3.3.3.1.1. Normal search to item-of-interest to lock-on.
- 3.3.3.1.2. Normal search to lock-on.
- 3.3.3.1.3. Item-of-interest to lock-on.
- 3.3.3.1.4. Lock-on only.
- 3.3.3.1.5. Frequency changes between lock-on.

#### 3.3.3.2. SAM Threats. The ESS has the following options for SAM simulation:

- 3.3.3.2.1. Operating in low PRF, high PRF, or low and high PRF switching.
- 3.3.3.2.2. Frequency separation between beams other than normal.
- 3.3.3.2.3. Changing frequencies within the band.
- 3.3.3.2.4. Changing modes of operation (e.g., Track-While-Scan to Dish-to-Dish to Lobe-on-Receive-Only).
- 3.3.3.2.5. EA reactive SAM simulation based on aircraft EA (MUTES/TRAINS, JTE, and UMTE).

#### 3.3.3.3. Fighter Threats. The ESS has the following options for AI simulation:

- 3.3.3.3.1. Normal search to lock-on.
- 3.3.3.3.2. Lock-on only.
- 3.3.3.3.3. PRF switching.
- 3.3.3.3.4. Frequency shifting.
- 3.3.3.3.5. Power changes to simulate AI closure.

3.3.4. Simulated Equipment Malfunction Runs (SEMR). Wings are encouraged to conduct EA activity with simulated electronic warfare system malfunctions.

3.3.5. As LVC continues to advance, EW training will become more dependent on this particular capability. Given the limitations in airspace, the electromagnetic spectrum, and hurdles in live modern threat replication, Contested/Denied/Operationally-limited environments are best replicated in synthetic or constructive environments. EW training requirements should be coordinated through the MAJCOM EWO, who will integrate with the MAJCOM OTI Manager and HAF/A3T. (T-2)

## 3.4. General Procedures: (T-3)

3.4.1. Command procedures described in applicable volumes of AFTTP 3-1, EA Mission Guides, and EA system handbooks provide aircrews with the best possible information available for countering threats. These procedures and tactics must be continually emphasized and used within peacetime constraints. The use of unproven or unauthorized guidance jeopardizes training effectiveness and negatively reinforces the application of these guidelines in a combat environment.

3.4.2. Aircrews should attempt EA runs concurrent with bomb runs when possible. All concurrent runs should be debriefed as a crew, with focus being given to the proper procedures (jamming, maneuvers, threat calls, 3-3/3-1, B52 standards, etc.). Bomb run effectiveness should be scored using 3-1.Shot Kill criteria. Debriefing tools (ATIDS, Debrief, RIIS/ITAS, etc.) should be used to the max extent possible to ensure accurate sortie details are captured and debriefed.

3.4.2.1. A Nellis AFB based company is responsible for EA MUTES scenario generation and RIIS/ITAS operations. EA scenario descriptions are defined in ACCI 10-707, ACCI 10-707\_SUP\_I (Aviators), and ACCI 10-707\_SUP\_II (Range Operators). These documents can be found at the following SIPR web site: <http://www.nellis.af.smil.mil/units/range/RIIS/default.htm>. Previously, these instructions were known as ACCR 51-5, ECRG 50-6, and ACCI 11-456.

3.4.2.2. ITAS files, software, and mission support documents can be found here: <https://cs.eis.af.mil/sites/10208/ITAS/SitePages/Home.aspx>. Additional training range information can be found on the following SharePoint: <https://cs.eis.af.mil/sites/10208/default.aspx>.

3.4.2.3. When EA runs are performed in formation, all aircraft will be subject to threats. Aircraft will counter all non-restricted threats provided by the site IAW 3-1.MDS and EAHB guidance. When applicable, all aircraft may take credit for the run providing each aircraft detects and counters (as appropriate) the signal environment. AFI 11-2MDSv1 and subsequent RTMs will take precedence for training credit criteria.

3.4.3. Crews will plan each training run as if they are conducting the attack in a combat situation. Action points will be determined on mission planning day, and crews will evaluate whether or not they met these actions during debrief. FENCE checks and equipment presets will be used to the max extent possible. Aircrews' threat reactions to the simulated threat signals will be according to applicable volumes of AFTTP 3-1, technical orders, EA Mission Guides and/or EA system handbooks, and local directives.

3.4.4. EA run vulnerability will be from initial engagement until site and/or aircraft termination, and will be based on current frequency clearance restrictions. EWOs will be ready to engage simulated threats from initial scenario setup (e.g. SCM point) through scenario termination (e.g. TCM point). Crews may call terminate to set up for another run. For multiple runs requiring a reset, vulnerability will be from the initial "fights on" call through "terminate".

3.4.4.1. Aircrews will provide the site with sufficient notice and information to ensure the proper feedback of EA activity. Depending on range procedures, this may involve pre-coordination for RIIS/ITAS recordings.

3.4.4.2. EA requests should be passed to the site via electronic means during mission planning (when available). Phone or FAX requests are acceptable, especially if the site is not equipped with electronic request capabilities. Real time coordination may be conducted if range procedures allow.

3.4.4.3. Attempt to contact the site and confirm requested activity prior to the IP.

3.4.4.4. For Conventional/Nuclear Operational Readiness Inspections (CORI/NORIs); specific EA activity will not be requested unless briefed as part of the inspection procedures.

3.4.4.5. For more realistic training, EWOs may consider turning down/off the radio used to communicate with the ESS range. Responsibility for monitoring this radio will be passed to an instructor, or other crew member, prior to ceasing monitoring. An instructor or other crew member can be used to make the EA request and/or “fights on” call. This will give the EWO the added uncertainty of not knowing when signals will pop up, similar to a combat environment.

3.4.5. Aircrews will counter appropriate EW, GCI, and acquisition signals (if capable) in conjunction with the threats. Active countermeasures will be initiated against signals per the EA system handbook, applicable volumes of AFTTP 3-1 volume set, and airborne EA frequency authorizations. Terminate any acquisition jamming interference which causes ineffective communications. If signals radiate outside of authorized frequencies, EWOs should simulate countering the signals to the best of his or her ability.

3.4.6. When the aircrew establishes radio contact, they will confirm the activity previously scheduled via electronic means. Changes to scenario request are permitted real time if it serves to improve training, or is at the direction of a no-notice evaluator IAW AFI 11-2B-MDSv2.

3.4.6.1. Feedback recording begins when both the following conditions exist: any threat radar in the scenario first becomes a threat to the aircraft, and the aircraft is within the site's frequency clearance range.

3.4.6.1.1. Termination should be before the IP of the next inbound EA run, unless a reattack is part of the training scenario. Aircrews should be aware EA runs may be compressed or terminated early to allow the site to set up for subsequent runs.

3.4.6.1.2. Aircrew will not radiate until within the frequency-cleared area around the site. Refer to each site's specific frequency clearance. **Exception:** Radiation outside site-specific cleared area is authorized provided cleared frequencies exist. Refer to CJCSM 3212.02, and applicable AFGSC guidance, as well as local publications or guidance for current clearances.

3.4.6.2. Expect that MUTES/TRAINS-equipped sites will not engage the aircraft until an EA request is received from the aircrew. The site will make every effort to provide feedback for the EA run, but if the EA request is received too late for TRAINS (where available) or the TRAINS follow-on (CEAR) to set up, feedback will be limited.

3.4.7. During EA runs, IFF/SIF modes and codes must be used in accordance with ATC instructions or as directed by the site or communications plan. Specific EA requests and coordinated Mode 3 codes, made in advance, are especially important at Mini-MUTES equipped sites, since Mini-MUTES pedestals can engage the aircraft long before the IP or UHF radio range. The site needs valid Mode 3 to provide feedback to the aircrews. Other aircraft in the formation may squawk Mode 3 STBY if authorized by ARTCC. Training is typically not affected if other aircraft in the formation continue to squawk their own separate Mode 3 codes.



3.4.8. Immediate feedback may be requested by asking for the presence/absence of "music" from the MUTES and TRAINS sites. This "music" check request should be made at the initial call in to ensure the viewing of the requested signal by TRAINS operators. You may also make a "negative music" call to inform the operators that you are not in receipt of the expected signals.

**3.5. MUTES Procedures and Scenarios:** (Range guidance/procedures IAW applicable AFI13-212 & AFI13-212SUP guidance will take precedence over this instruction, all other waivers will be T-3)

3.5.1. Aircrews should request desired EA activity at MUTES or Mini-MUTES sites via electronic means during mission planning. Advance EA requests are imperative for Mini-MUTES activity. Due to the locations of remote Mini-MUTES pedestals, the aircraft may be engaged prior to the Initial Point. If the EA request is not made in advance, the aircrew may receive incorrect or unwanted activity.

3.5.2. Aircrews have the following request options:

3.5.2.1. Requesting "MUTES EA," should result in a site-selected scenario being presented. Mini MUTES sites will select a compatible scenario for each pedestal. Maximum proficiency and practice CORI/NORI scenarios will be presented only if specifically requested. If the site operator is unfamiliar with that term, the use of "dealer's choice" or just plain English is advised.

3.5.2.2. Requesting a type of scenario, for example, "Bomber01 requests a Tango scenario".

3.5.2.3. Requesting a specific scenario, for example, "Bomber01 looking for a Tango 02".

3.5.2.4. Requesting the pre-coordinated scenario, for example, "Bomber01 requesting <call-in sheet scenario name>".

3.5.3. Aircrews will notify the site if MUTES signals do not appear on aircraft receivers. Reporting will be unclassified using the MUTES signal number published in ACCI 10-707\_SUP\_I & II.

3.5.4. MUTES Scenarios: Wing EWOs are responsible for ensuring specific scenarios are available to meet training requirements. Developed scenarios are available on the Nellis website (<http://www.nellis.af.smil.mil/units/range/RIIS/default.htm>). HQ AFGSC and HQ ACC encourage feedback on developed scenarios which may enhance training. If developed scenarios do not meet training requirements, Wing EWOs will submit requests to the MAJCOM EWO, and once approved will submit requests to the contractors responsible for scenario production for action.

**3.6. Mini-MUTES Procedures and Scenarios:** (Range guidance/procedures IAW applicable AFI13-212 & AFI13-212SUP guidance will take precedence over this instruction, all other waivers will be T-3)

3.6.1. The AN/MST-T1(V) Mini-MUTES is a smaller, more mobile version of the MST-T1A MUTES. There are seven Mini-MUTES configurations (pedestals), which combine transmitters identical to those used in the MUTES. Each pedestal is designed to simulate only

a particular family of threat or acquisition signals. Each pedestal is referred to by letter: B, C, G, H, K, L, or M.

### 3.6.2. Scheduling:

3.6.2.1. Schedule Mini-MUTES using the same procedures as MUTES.

3.6.2.2. Aircrews not desiring inclusion of Mini-MUTES during an EA run will stipulate "MUTES ONLY" after their MUTES scenario request via electronic means on mission planning day.

3.6.2.3. If MUTES are inoperable at a MUTES and Mini-MUTES-configured site, Mini-MUTES sites may schedule and present scenarios on a stand-alone basis.

**3.7. JTE & other threat simulation assets:** These should be scheduled IAW the applicable range procedures where the assets are located.

**3.8. Multiple Threat Run Procedures** . Aircrews may take credit for an MTR whenever an appropriate signal environment is encountered. This may be logged anytime the simulated threat environment produces multiple threats at the same time (e.g. SAM & ADA simultaneously). The Wing EWO will make the determination if a scenario is robust enough to warrant credit. Wing EWOs will also set the requirements for user defined scenarios with regards to MTR credit.

## Chapter 4

### PROCEDURES FOR CONDUCTING EXPENDABLE ACTIVITY (T-3)

**4.1. General.** This chapter establishes procedures for expendable training activity. All AFGSC wings and AFGSC-gained units and crewmembers must comply with the applicable paragraphs of this chapter.

**4.2. Responsibilities** . Wings must ensure that:

4.2.1. All personnel concerned are familiar with AFI 10-706, AFI 11-214, AFI 11-215, CJCSM 3212.02, and this instruction.

4.2.2. In compliance with CJCSM 3212.02, chaff will not be dropped in the U.S. except in those ranges, areas, routes, or military operating areas that have been environmentally assessed. Coordinate with the AFGSC MAJCOM EWO to process chaff clearances IAW CJCSM 3212.02.

**4.3. Chaff Drop Activity** : (T-3 when not specified by CJCS/AFI/FAA guidance)

4.3.1. Requirements to drop chaff.

4.3.1.1. Environmental clearance. (Processed in conjunction with the frequency clearance).

4.3.1.2. Frequency clearance IAW CJCSM 3212.02.

4.3.2. Training chaff will normally be loaded and expended in a manner reflective of the combat environment being emulated for all training exercises. Conduct live chaff drop activity only in authorized special use airspace contained in current FLIP planning documents. Clearances for dropping designated training chaff are available from the MAJCOM. The flight will coordinate with the FAA IAW CJCSM 3212.02. For air-to-air training, procedures will be accomplished per AFI 11-214. If designated training chaff is not available, wings may request MAJCOM approval to load and dispense operational chaff during training exercises whenever frequency and range clearances permit. Dispensing will be per the MDS specific EA handbook and the applicable volume of AFTTP 3-1. Failure to dispense chaff due to FAA, airspace, or environmental restrictions does not constitute loss of the air-to-air training exercise.

4.3.3. The Wing EWO will develop local procedures, with MXG input, to check aircraft chaff systems as required. Due to environmental effects on chaff bundles stored loaded on the aircraft, especially in humid AORs, chaff should not be loaded on the aircraft unless its use is expected during the sortie. Chaff not expended should be downloaded during post mission maintenance actions. Ensure procedures are properly vetted and documented IAW AFI21-101 para 11.31.3. For circumstances where leaving chaff on the aircraft is desired, it will be inspected IAW T.O. 12P3-1-8 para 3.3.

**4.4. Flare Drop Activity** : (T-3 when not specified by CJCS/AFI/FAA guidance)

4.4.1. Conduct live flare drop activity only in authorized special use airspace contained in current FLIP planning documents and overwater firing areas.

4.4.1.1. Restricted Areas. Restricted Areas may be used for flare drops provided the controlling agency has issued written permission on a case-by-case basis.

4.4.1.2. Overwater. When impractical to overfly an authorized special use airspace (Whiskey Areas) or restricted areas, flare drops may be conducted overwater (other than inland water). The area will be at least 50 nautical miles from all shores and at least 25 nautical miles from established airways and corridors listed in current aeronautical charts or oceanic area operating instructions. Furthermore, take care not to drop flares through another aircraft's altitude.

4.4.2. Procedures:

4.4.2.1. All procedures and restrictions not covered in this instruction will be IAW AFI 11-214.

4.4.3. Communications:

4.4.3.1. Before entering the airspace, the aircrew must contact the controlling agency and provide the following information:

4.4.3.1.1. Type aircraft.

4.4.3.1.2. Type training to be conducted.

4.4.3.1.3. Proposed drop altitude.

4.4.3.2. The aircrew must contact the controlling agency before entering and departing the airspace.

4.4.4. In case of an inadvertent flare drop, take the following actions:

4.4.4.1. Immediately safe the applicable system by all available means.

4.4.4.2. The aircrew must immediately notify air traffic control of the incidence's nature, location, and estimated damage (if any observed).

4.4.4.3. Record the time, geographic coordinates of the inadvertent release, and system configuration at the time of release. Make note of any recorded data, error messages, and fault codes, and flight conditions as these may also be relevant to the situation. Provide these notes to maintenance personnel as soon as practical.

4.4.4.4. The unit to which the aircrew is assigned is responsible for complying with the applicable portions of AFI 90-301, Inspector General Complaints, as supplemented, and other applicable aircraft specific directives that apply to this instruction.

**4.5. Maintenance Actions : (T-3)**

4.5.1. EWOs will use applicable checklist and procedures to evaluate malfunctions and perform authorized in-flight maintenance IAW the applicable crew tech orders, checklists, AFIs, and local guidance. In-flight maintenance actions will not go beyond the applicable guidance, and safe recovery of the aircraft and minimizing risk of further damage to the equipment will take precedence over training. EWOs will simulate operable equipment to facilitate the accomplishment of as much training as possible. EWOs should also consider real world malfunctions as an opportunity to train to degraded equipment, or equipment out procedures.

4.5.2. EWOs will take the time to make accurate assessments of equipment functionality, and will write-up discrepancies accordingly. Wing EWOs will work with maintenance to ensure all equipment concerns are met. EWOs should familiarize themselves with the ECM back shop process, and have a good working knowledge of their equipment, and how it gets serviced.

4.5.3. Maintenance write-ups will be based on expected capabilities IAW equipment design specifications. The prevalence of a particular degraded status across the fleet will not be considered a new acceptable baseline. EWOs will continue to write-up subpar equipment. Maintenance will either fix the equipment or write it up as a deficiency against the supply chain.

4.5.4. For all attempted flare releases, EWOs will note the number of attempted releases vs. the number expended. Any hung flares should be reported to maintenance and to the Wing EWO. The Wing EWO will establish a procedure for tracking flare success rates, and will report them to the MAJCOM EWO. Items of interest are flare type, aircraft tail number, number of attempted releases, number hung. The MAJCOM EWO will report these numbers to AFGSC/A4AY and the SPO.

## Chapter 5

### PEACETIME ELECTRONIC ATTACK EMISSION CONTROL (EMCON) PROCEDURES (T-2)

**5.1. General** . This chapter establishes procedures for protecting AFGSC's wartime EC capabilities from hostile exploitation. It applies to all AFGSC wings and gained units participating in EA training and exercises worldwide. The guidelines set forth in this chapter take precedence over AFGSC EA activities conducted in conjunction with AFGSC or joint exercises, tests, etc.

#### **5.2. Terms :**

5.2.1. EA Training. Any active transmission of electronic countermeasures in reaction to simulated threat radars or friendly radar systems for the purpose of peacetime training.

5.2.2. TMDF. Training mission data file.

5.2.3. OMDF. Operational mission data file.

#### **5.3. EA EMCON Guidance :**

5.3.1. The purpose of AFGSC's EA EMCON procedures is to prevent the hostile collection of wartime EA equipment settings, operations, and techniques that could compromise AFGSC's wartime capabilities and war plans. Wing EWOs will ensure their unit follows EMCON procedures established in this instruction both in and outside the CONUS. Air Force Warfare Center will develop training and/or exercise data/tapes with "generic" techniques, or less capable variations of combat settings, for use at ESSs, ranges, and OCONUS.

5.3.2. The following applies for all CONUS exercises and lead-in/continuation training and testing on EA ranges:

##### **5.3.2.1. Air-to-Ground Testing and Training:**

5.3.2.1.1. Nellis and Eglin ranges are operated under controlled conditions and have specific procedures in place to preclude possible compromise. Only with an approved test plan will radiation of current OMDF, or newly developed OMDF EA settings, be authorized in support of testing (DT&E, IOT&E, QOT&E, FDE, and FOT&E).

5.3.2.1.2. OFMD in software reprogrammable EW systems will not be used on any training mission, or on any range, unless written authorization is received from AFGSC/A3T. AFGSC/A3T will work through the geographic AF MAJCOMs and/or 8 AF A3/5 to coordinate OFMD operations in their area. Requests will be made via SIPRNET ([usaf.barksdale.afgsc.mbx.afgsc-a3tw-workflow@mail.smil.mil](mailto:usaf.barksdale.afgsc.mbx.afgsc-a3tw-workflow@mail.smil.mil)) NLT 45 days prior to the sortie. AFGSC/A3TO must submit requests to the geographic AF MAJCOM NLT 30 days prior to the sortie. OFMDs will not be used at Nellis during exercises with foreign participation in any capacity.

5.3.2.1.3. OMDF may be loaded during deployed operations with the approval of the applicable Operations Group Commander. At no point will the systems be placed in a status where they can radiate, unless the aircraft is involved in an actual combat mission and all actions are IAW the COCOMs written wartime SPINS and guidance.

5.3.2.1.3.1. The following information will be submitted to AFGSC/A3TW, for use of OMDF outside of deployed operations IAW paragraph **5.3.2.1.3.**:

5.3.2.1.3.1.1. Requests must include:

5.3.2.1.3.1.2. Date.

5.3.2.1.3.1.3. Time.

5.3.2.1.3.1.4. Area.

5.3.2.1.3.1.5. Type aircraft.

5.3.2.1.3.1.6. Number of aircraft.

5.3.2.1.3.1.7. Number of sorties.

5.3.2.1.3.1.8. Which tape(s)/MD is being requested.

5.3.2.1.3.1.9. What are the desired training results? Training gained must be balanced against possible exploitation.

5.3.2.1.3.2. In addition, planners must ensure the following:

5.3.2.1.3.2.1. Aircrews must ensure their respective transmit switches are not placed to transmit outside applicable airspace.

5.3.2.1.3.2.2. Follow all CJCSM 3212.02 frequency restrictions as well as EMCON procedures contained in this instruction.

5.3.2.1.3.2.3. Unit will notify the MAJCOM EWO and/or AFGSC/A3T if any EW system is placed to transmit outside applicable airspace or approved conditions.

5.3.2.1.3.2.4. (**Nellis Range**) Units must ensure EMCON procedures are active during their use of the applicable airspace. Also, the non-encrypted microwave link must not be operating.

5.3.2.1.3.2.5. Ensure no foreigners are able to view jamming/jamming effectiveness against ground threats.

5.3.2.1.3.2.6. Unit must contact USSPACECOM Indications and Warning Center, <https://www.dmoc.afspc.af.smil.mil/> for satellite advance notice information. To gain access to specific AOR reports, create an account under the "Run-It-Yourself" section.

5.3.2.1.3.2.7. Approval will be predicated on: (a) Mission ready aircrews being in the seat during all sorties with the operational EC tape/MD loaded, (b) Feedback to the MAJCOM EWO and/or AFGSC/A3T in the form of an after action report no later than 10 days after the exercise, and (c) Compliance with the EMCON procedures in this instruction. SIPRNET address is [usaf.barksdale.afgsc.mbx.afgsc-a3tw-workflow@mail.smil.mil](mailto:usaf.barksdale.afgsc.mbx.afgsc-a3tw-workflow@mail.smil.mil).

5.3.3. EA Operations outside the CONUS. Units will submit requests to AFGSC/A3T, and once approved AFGSC/A3T will submit requests to the geographical COCOM for approval.

## Chapter 6

### ELECTRONIC WARFARE ASSESSMENT PROGRAM (T-2)

**6.1. General** . IAW AFI10-706, Electronic Warfare Operations Change 1, dated 22 Feb 17, paragraph 4.3.3. MAJCOMS will establish readiness standards for EW systems based on their operational requirements to ensure sufficient numbers of fully mission capable systems are available to meet operational commitments. Paragraph 4.3.3.2 stipulates that all bomber aircraft unit commanders will conduct EW system readiness assessments using the COMBAT SHIELD program.

**6.2. Operations & Maintenance Involvement** : Wing EWOs should organize cross talk meetings with maintenance personnel in order to facilitate better understanding of systems operations and maintenance/assessment processes.

6.2.1. Wing EWOs will ensure line EWOs or DSOs, have a good working knowledge of ECM back shop operations, and that they have identified the correct POC to discuss any ECM or defensive system maintenance matters. They will also ensure ECM technicians have exposure to an acceptable level of operational requirements to better mitigate system issues and CND write-ups during maintenance debrief. These activities may include, but are not limited to, simulator familiarization and/or incentive flights. The goal is to give the maintainers the ability to see their system of responsibility from a more operational perspective. When able, consider using incentive flights because it will allow maintainers to see the actual systems operating within the environments for which they were designed. The intent is to allow a system expert to see system issues that may only manifest in a high altitude environment.

**6.3. Assessments** .

6.3.1. EW system assessments for B-52 aircraft will be accomplished IAW annual USM-464 test requirements. Once an aircraft passes the annual USM-464 test, the aircraft is considered Fully Mission Capable (FMC) from an EW standpoint and commanders will input the results into the Defense Readiness Reporting System (DRRS). The USM-464 is a B-52 EW system end-to-end test and does not adequately evaluate all aspects of EW mission capability. Programs, such as COMBAT SHIELD, will be used to evaluate EW systems, mission data, and ops and maintenance procedures in order to provide a more holistic readiness picture. Training ranges with ECM scoring capability should also be used for routine and continual EW system assessment and evaluation. Wing and MAJCOM EWOs will work to establish and/or maintain a program that utilizes all available means to ensure the most accurate picture regarding fleet defensive readiness.

6.3.2. EW system assessments for B-2 aircraft will be accomplished annually using Onboard Integrated Test System (OBITS) for the Defensive Management System. Once an aircraft passes the annual OBITS test, the aircraft is considered FMC from an EW standpoint and commanders will input the results into the DRRS. OBITS is a B-2 EW systems test and does not adequately evaluate all aspects of EW mission capability. Programs, such as COMBAT SHIELD, will be used to evaluate EW systems, mission data, and ops and maintenance procedures in order to provide a more holistic readiness picture. Training ranges with ECM scoring capability should be used for routine and continual EW system assessment and



evaluation when system capabilities and security classifications allow. Wing and MAJCOM EWOs will work to establish a program to utilize all available means to ensure the most accurate picture regarding fleet defensive readiness.

6.3.3. EW system assessments for B-1B aircraft will be accomplished IAW T.O. 1B-1B-6 Electronic Warfare timelines. Once an aircraft passes the required DAS assessments, assuming no EW system component parts are on order, the aircraft is considered FMC from an EW standpoint and commanders will input the results into the DRRS. The DAS assessment is a B-1 EW system end-to-end test and does not adequately evaluate all aspects of EW mission capability. Programs, such as COMBAT SHIELD, will be used to evaluate EW systems, mission data, and ops and maintenance procedures in order to provide a more holistic readiness picture. Training ranges with ECM scoring capability should be used for routine and continual EW system assessment and evaluation. Wing and MAJCOM EWOs will work to establish a program to utilize all available means to ensure the most accurate picture regarding fleet defensive readiness.

FERDINAND B. STOSS III, Major General, USAF  
Director of Operations and Communications

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

AFPD 10-7, *Information Operations*, 04 Aug 14

AFI 10-703, *Electronic Warfare Integrated Reprogramming*, 04 Jun 14

AFI 10-706, *Electronic Warfare (EW)*, 14 May 14

AFI 11-202 Vol 3, *General Flight Rules*, 10 Aug 16

AFI 11-214, *Air Operations Rules and Procedures*, 14 Aug 12

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AFI 11-2B-MDS Specific Vol 2, *MDS Aircrew Evaluation Criteria*

AFI 13-113 Vol 1, *Tactical Air Control Party (TACP) and Air Support Operations Center (ASOC) Training Program*, 14 Jun 12

AFI 17-221, *Spectrum Interference Resolution Program*, 22 Dec 15

AFI 21-101 CAF Sup Addendum C, *Aircraft and Equipment Maintenance Management*, 11 Sep 13

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AFI 17-220, *Spectrum Management*, 16 Mar 17

CJCSM 3212.02D, *Performing Electronic Attack in the United States and Canada for Tests, Training, and Exercises*, 31 Dec 13

CJCSM 3320.02, *Joint Spectrum Interference Resolution (JSIR) Procedures*, 28 Jan 2009

DoDI 4650.01, *Policy and Procedures for Management and Use of the Electromagnetic Spectrum*, 9 Jan 2009

***Abbreviations and Acronyms***

**ACC**—Air Combat Command

**ACCI**—Air Combat Command Instruction

**ACCR**—Air Combat Command Regulation

**ACTS**—Air Combat Training Systems

**ADA**—Air Defense Artillery

**AFGSC**—Air Force Global Strike Command

**AFGSCI**—Air Force Global Strike Command Instruction

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive  
**AFRC**—Air Force Reserve Command  
**AFRIMS**—Air Force Records Information Management System  
**AFTTP**—Air Force Tactics, Techniques, and Procedures  
**AI**—Airborne Interceptor  
**ANG**—Air National Guard  
**AOR**—Area of Responsibility  
**ARTCC**—Air Route Traffic Control Center  
**ATC**—Air Traffic Control  
**ATIDS**—Automated Tactical Information Display System  
**BW**—Bomb Wing  
**CAF**—Combat Air Forces  
**CC**—Combat Communications  
**CND**—Can Not Duplicate  
**CEAR**—Common Electronic Attack Receiver  
**CJCSM**—Chairman of the Joint Chiefs of Staff Manual  
**COCOM**—Combatant Command  
**CONUS**—Continental United States  
**CORI**—Conventional Operational Readiness Inspection  
**CSO**—Combat Systems Officer  
**CTR**—Combat Training Range  
**CWPC**—Contingency Wartime Planning Course  
**DRRS**—Defense Readiness Reporting System  
**DSO**—Defensive Systems Officer  
**DT&E**—Developmental Test and Evaluation  
**EMCON**—Emission Control  
**EA**—Electronic Attack  
**EAHB**—EA Handbook  
**EC**—Electronic Combat  
**ECM**—Electronic Countermeasures  
**ECRG**—Electronic Combat Range Group  
**EMS**—Electro Magnetic Spectrum

**ESS**—Electronic Scoring Site  
**EW**—Electronic Warfare  
**EWCC**—Electronic Warfare Coordinators Course  
**EWIR**—Electronic Warfare Integrated Reprogramming  
**EWO**—Electronic Warfare Officer  
**EWWG**—Electronic Warfare Working Group  
**FAA**—Federal Aviation Administration  
**FDE**—Force Development Evaluation  
**FLIP**—Flight Information Publication  
**FMC**—Fully Mission Capable  
**FOT&E**—Follow-on Test and Evaluation  
**FTU**—Formal Training Unit  
**GCI**—Ground Control Intercept  
**HAF**—Headquarters Air Force  
**HQ**—Headquarters  
**IAW**—In Accordance With  
**IFF**—Identification, Friend or Foe  
**IG**—Inspector General  
**IOFAC**—Information Operations Fundamentals Applications Course  
**IOT&E**—Initial Operational Test and Evaluation  
**IP**—Initial Point  
**ITAS**—Integrated Tactics Assessment System  
**JAOPC**—Joint Air Operations Planning Course  
**JTE**—Joint Threat Emitter  
**LVC**—Live, Virtual, Constructive  
**MAJCOM**—Major Command  
**MD**—Mission Data  
**MDS**—Mission Design Series  
**MOA**—military operating area  
**MSDDS**—Multi-Service Data Distribution System  
**MTR**—Multiple Threat Run  
**MUTES**—Multiple Threat Emitter Systems

**NAF**—Numbered Air Force  
**NIPR**—Non-Secure Internet Protocol Router  
**NLT**—No Later Than  
**NORI**—Nuclear Operational Readiness Inspection  
**OBITS**—Onboard Integrated Test System  
**OCONUS**—Outside Continental United States  
**OMDF**—Operational Mission Data File  
**OPLAN**—Operations Plan  
**OSS**—Operations Support Squadron  
**OTI**—Operational Training Infrastructure  
**PCS**—Permanent Change of Station  
**PIWG**—Program Improvement Working Group  
**POC**—Point of Contact  
**PRF**—Pulse Repetition Frequency  
**PTR**—Primary Training Range  
**PWG**—Program Working Group  
**QOT&E**—Qualification Operational Test and Evaluation  
**RAP**—Ready Aircrew Program  
**RIIS**—Route Integrated Instrument System  
**RWR**—Radar Warning Receiver  
**SAM**—Surface-to-Air Missile  
**SCM**—Start Counter Measures  
**SEMR**—Simulated Equipment Malfunction Runs  
**SIF**—Selective Identification Feature  
**SIPR**—Secure Internet Protocol Router  
**SPINS**—Special Instructions  
**SPO**—System Program Office  
**TBD**—To Be Determined  
**TMDF**—Training Mission Data File  
**T.O**—Technical Order  
**TRAINS**—Threat Reaction Analysis Indicator System  
**TTP**—Tactics, Techniques and Procedures

**UHF**—Ultra High Frequency

**UMTE**—Unmanned Threat Emitter

**USAFWC**—United States Air Force Warfare Center

**USSPACECOM**—United States Space Command

**WEPTAC**—Weapons and Tactics Conference

**WG**—Working Group or Wing

**WSO**—Weapon Systems Officer