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**HEADQUARTERS UNITED STATES AIR FORCE**  
**WASHINGTON, DC**

**AFMAN11-301V1\_AFGM2024-01**  
**18 OCTOBER 2024**

MEMORANDUM FOR DISTRIBUTION C  
ALMAJCOM

FROM: HQ USAF/A3  
1480 Air Force Pentagon  
Washington, DC 20330-1480

SUBJECT: Air Force Guidance Memorandum to AFMAN 11-301 Volume 1, *Aircrew Flight Equipment (AFE) Program*.

By Order of the Secretary of the Air Force, this Guidance Memorandum immediately implements changes to AFMAN 11-301 Volume 1, *Aircrew Flight Equipment (AFE) Program*. Compliance with this memorandum is mandatory. To the extent its directions are inconsistent with other Department of the Air Force publications, the information herein prevails in accordance with DAFI 90-160, *Publications and Forms Management*.

The attachment to this memorandum provides clarifying guidance regarding updates to process and procedures that have mission impact affecting the Aircrew Flight Equipment career field.

This memorandum becomes void after one year has elapsed from the date of this memorandum, or upon incorporation by interim change to, or rewrite of AFMAN 11-301 Volume 1, whichever is earlier.

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Deputy Chief of Staff, Operations

Attachment 1:  
Guidance Changes

**Attachment 1:**  
**AFMAN11-301V1\_AFGM2024-01**

## Guidance Changes

ADDED 2.2.4.3. Coordinates with Headquarters Air Force Installation and Mission Support Center (AFIMSC) for funding, manpower, exercise, equipment, supplies, modernization and training, (these functions may be delegated). Examples of training are the annual operational evaluation exercise of the 9ALCW AFE ACBRN Response UTC/Aircrew Contamination Control Area (ACCA) operations and AFE participation in the North Atlantic Treaty Organization's (NATO) annual ACBRN Standardization Agreement (STANAG) evaluation and Combined Interoperability CBRN Defense in Air Operations Exercise (known as Exercise TOXIC TRIP).

ADDED 2.2.4.4. Coordinate with MAJCOMs to rotate an annual 9ALCW exercise to validate skills, operation, and availability of the 9ALCW UTC.

ADDED 2.2.22. Approves new AFE Unit Type Codes (UTC).

ADDED 2.9.47. Validate units have the required equipment for each specific plan they support, they are accurately grading their capability, and reporting in Defense Readiness Reporting System (DRRS) IAW AFI 10-201 *Force Readiness Reporting*.

ADDED 2.9.47.1. Will coordinate with lead MAJCOM to obtain training equipment/systems to support non-operational AFE units for ACCA training.

ADDED 2.9.48. Headquarters ACC is the designated lead MAJCOM for all Chemical and Biological (CB) issues. Headquarters Air Force Global Strike Command is designated lead MAJCOM for all Radiological and Nuclear (RN) related issues. Both MAJCOMs shall:

ADDED 2.9.48.1. Through the United States Air Forces in Europe-Air Forces Africa AFE Functional Area Managers (FAM), coordinate budget inputs and participation in the annual NATO Exercise TOXIC TRIP.

ADDED 2.9.48.2. Forecast budget requirements for AFE attendees and participation in all ACBRN events and forward to Aircrew Performance Division (AF/A3TH) for inclusion in the annual AFCEC CBRN budget.

ADDED 2.9.49. MAJCOMs with Strategic Aircraft Regeneration Teams (e.g., Bomber Strategic Aircraft Regeneration Teams) must review AFI 13-520, *Aircraft and ICBM Nuclear Operations* and any MAJCOM supplements to identify requirements and ensure their tasked units can meet these specialized requirements.

DELETED 2.11.2.

ADDED 2.14.3.1.5. Trainer/Certifiers

CHANGED 2.14.5. Ensure AFE technicians are trained and qualified IAW this instruction, CFETP 1P0X1 and DAFMAN 36-2689, Training Program. Additionally, ensure AFE technicians meeting special/unique training requirements have applicable SEIs in their records and are assigned to duty positions maximizing those qualifications (e.g., premeditated personnel parachute inspection/packing, AFSPECWAR equipment maintenance). When moving personnel between

duty positions, supervision should carefully consider the Airman's career development, equipment/shop continuity and return on investment of time and funds spent training and qualifying these individuals.

CHANGED 3.13.1 AFE sections that store/issue Small Arms/Light Weapons (SA/LW) in support of aircrew operations will comply with the following **(T-1)**: Note: Air Mobility Command units will not store/issue/maintain SA/LW. **(T-2)**

CHANGED 4.1.3. AFETT is an instructional process for upgrade, qualification, or continuation training. AFETT will be conducted IAW DAFMAN 36-2689, CFETP 1P0X1, and **Table 4.1** of this instruction. **(T-1)**

CHANGED 4.2.2.1. Ensure the training program is managed. **(T-1)** Specific guidance may be found in DAFI 36-2670, DAFMAN 36-2689 and CFETP 1P0X1.

CHANGED 4.2.2.3: With AFELT assistance, develop a workcenter master training plan (MTP). The MTP will include a master task list (see DAFMAN 36-2689 for master task list development guidance), to include task timelines and milestones ensuring 100% task coverage. **(T-1)** Include unique workcenter tasks via a Workcenter Job Qualification Standard (WJQS), as required. **(T-1)**

CHANGED 4.2.2.4.2. Task evaluations are required for personnel prior to inspecting equipment that require IPI if they have not completed a full inspection of the equipment within 6 months. **(T-2)** Deploying personnel will re-accomplish their 6-month currency within 60 days of deployment and will be considered current throughout the duration of the deployment. **(T-2)** Track currencies utilizing electronic training records. **(T-2)** **Note:** MAJCOMs/ANG may extend the 6-month currency to 12 months for experienced technicians. MAJCOMs/ANG must clearly define experience requirements by equipment type in supplements to this publication.

CHANGED 4.2.3.1. Follow guidance in DAFI 36-2670, DAFMAN 36-2689, CFETP 1P0X1, and policy defined by the UTM, AFES and wing, to effectively execute the AFETT program and manage unit MTPs.

CHANGED 4.2.4.1. As a highly skilled and competent 1P0X1 NCO or SNCO, the AFELT serves as the primary Technician Training program manager and lead trainer. Specific guidance for operating the program is found in DAFI 36-2670, DAFMAN 36-2689 and AFMAN 11-301 Volumes 1-4. The AFELT must be a minimum grade of SSgt, hold AFSC 1P071, have been appointed by the AFES, and have at least 3 years of experience in AFE (1 of the 3 years must be working in an AFE facility at the 1P071 level) and must also be 100% qualified on workcenter MTP/MTL tasks or be augmented by an individual who is qualified on required tasks to ensure full coverage training. **(T-3)**

CHANGED 4.2.5.1. The AFE task trainer/certifier is a highly qualified and experienced AFE technician for those tasks that they are training/certifying. **(T-1)** AFE certifiers are at least a SSgt with a 7-skill level equivalent. **(T-1)** Based on manpower or 7-level shortages, highly experienced and qualified SSgt 1P051s may be appointed to perform certifier duties when approved by the unit commander. **(T-1)** The UTM and AFES/AFE COR will ensure task trainer/certifier meets all other requirements outlined in DAFMAN 36-2689. **(T-1)**

CHANGED 4.2.5.2. Evaluate newly assigned technicians to validate qualification in previously trained areas prior to them performing unsupervised work. Includes military, civilian, and contractor equivalent. **Note:** Trainer/certifier must consider MDS specific equipment configurations when evaluating previous qualifications. Newly assigned members will perform all previously qualified equipment tasks and the results will be documented in electronic training records. **(T-2)**

ADDED 5.3.3.1. AFE unit personnel with an ACBRN mission or postured to support 9ALCW tasking's will possess or have access to at least one set of training ACBRN equipment, a processing system, and will be trained in ACCA/ACCS operations, management, and aircrew processing using the applicable ACCA/ACCS Training Guides from the USAF AFE SharePoint®. **(T-2)** Units will coordinate needs with their owing MAJCOM. **(T-2)**

ADDED 5.3.3.2. Locally designated AFE personnel will be trained in CCS operations, and aircrew processing procedures using the ACCA/ACCS Master Lesson plan from the HAF AFE SharePoint®. **(T-2)** MAJCOM or Wing Aircraft Radiological Recovery Plans (ARRP) maintained by EM should be used for specific locations/aircraft. **(T-2)**

CHANGED: 5.3.4. LL02/LL03/LL05: Will only be instructed by a qualified instructor aircrew, who has been appointed by the OSS commander or flying squadron commander if under the A-Staff construct. **(T-1)** AFEOs manage the LL02/LL03/LL05 program and will certify instructor aircrew in writing or appoint a qualified instructor aircrew to conduct these duties if the AFEO is not qualified. **(T-1)** Exception: Civil service personnel, technicians or contractor equivalent may conduct AFECT courses if specifically hired for that purpose. Note: ANG AFE T32/T5 technicians do not fall under this exception and are not authorized to instruct LL02/LL03/LL05.

CHANGED 6.6.1. IPI's are TO-directed inspections or verification steps at critical points in the installation, assembly, or reassembly of a system, subsystem, or component.

ADDED 6.6.1.1. IPIs will be documented on the applicable inspection records (digital or physical). **(T-2)** See **Table 6.6**.

ADDED 6.6.1.2. The term IPI is not the same as a Rigger Check (RC). A Rigger Check is a specified interval during the packing of a parachute to ensure that only authorized procedures and methods are being used. A parachute rigger supervisor other than the packer will perform this inspection during the packing process in accordance with applicable service regulatory guidelines. **(T-1)**

ADDED 6.6.1.3. AF/A3TH or MAJCOMs may issue Special Interest Items (SIIs) or QA Flashes when the AFECFM/MFM determines special emphasis is required on equipment and/or inspection processes.

CHANGED 6.6.2.1. LCs are responsible for ensuring TO inclusion of IPI steps.

DELETE 6.6.2.2.

DELETE 6.6.2.3.

CHANGED 6.6.3. Enforce the Two-Person Concept when performing IPIs on flight equipment. **(T-1)** A Two-Person concept means a qualified IPI must perform the inspection and the IPI must be performed by someone other than the technician performing the periodic inspection, repack or repair. NOTE: Only technicians performing the inspection, repack, and/or repair, or the qualified IPI inspector will annotate the inspection record reflecting IPI step compliance. **(T-1)** NOTE: In the event of multiple personnel conducting IPIs on a single piece of equipment, one (1) IPI qualified individual will sign the inspection record as the responsible party. **(T-1)**

CHANGED 6.6.4. Inspection record with IPI name / initials will remain on file (digitally or in inspection binders) until the next inspection/repack, repair, or aircraft transfer. **(T-2)** Ensure all inspection records are maintained in a manner that provides 100% accountability and is readily accessible.

CHANGED 6.6.5. Notify flight leadership immediately upon discovery of records missing IPI name/initials in inspection records. Flight leadership will determine and document (MFR is sufficient) whether equipment must be removed from service and re-inspected, and impact to flight operations/scheduling. On-equipment work performed off-station (e.g., depot-level maintenance, TDY maintenance, etc.) should forward inspection records with IPI name or initials (or Work Control Document equivalent) to equipment owning organizations. **(T-3)**

CHANGED Table 6.6. Equipment IPI Process, Step 2. If discrepancy is found, annotate inspection record (continue to Step 3). If no discrepancy, have technician continue inspection process.

DELETE Table 6.6. Equipment IPI Process, Step 5.

CHANGED 7.4.4. All parachutes packed by FAA-certified and/or CSS (outside agency) require 100% QCIs performed/documented by current and qualified IPI AFE Riggers for that specific system. **(T-1)** The inspection record must clearly reflect in the notes section the parachute was packed by FAA/CSS personnel with associated credentials (e.g. certification or license numbers). **(T-1)**

DELETED 7.6.2.

**ADDED: Chapter 8**

**ADDED: DEPLOYED AFE OPERATIONS**

**ADDED 8.1. Deployment Requirements.**

ADDED 8.1.1. AFE sections will preassemble mobility packages to support contingency plans and recurring deployments. **(T-2)** Packages will be maintained to meet all assigned UTC and LOGDET based on the Mission Design Series (MDS) specific pilot unit standards. **(T-2)**

ADDED 8.1.2. Mobility packages will be inventoried and inspected for serviceability post-employment or at least once a year, whichever comes first. **(T-3)** AF Form 2411, *Inspection Document*, a locally developed form, or AFERMS product will be used to document this inspection. **(T-2)**

ADDED 8.1.3. Ensure items listed in Logistics Module and Packing lists are on-hand and serviceable. **(T-3)** Units will create local procedures to ensure inventory control and that all required items are on hand and easily located. **(T-3)**

ADDED 8.1.4. Test equipment, time change items, hazards, accountable equipment, and high value items may be stored separate from the mobility bin.

ADDED 8.1.5. Ensure mobility use TMDE items with an 18-month or less inspection cycle are placed on War Reserve Material status/inspection cycle. **(T-3)** If TMDE items are not on a War Reserve Material inspection cycle the items supporting the UTC should be calibrated to the maximum extent possible. **(T-3)** Inspection should be staggered to prevent all TMDE coming due at the same time. TMDE will be carefully and adequately packaged to prevent damage. **(T-3)**

ADDED 8.1.6. Aircrews deploying into CBRN threat areas will hand carry their individually fit ACBRN D-1 bag ensemble with them. **(T-3)** As directed, the remainder of ACBRN D-bags will be shipped with the rest of the unit's equipment. **(T-3)** **Note:** Commanders may direct the palletization of ACBRN D-1 bags when sufficient space on the aircraft does not permit these bags to be hand carried on aircraft or when there is not an immediate need for these assets at the deployed location.

ADDED 8.1.7. When mission requirements dictate, Operations Group commanders (or equivalent) are authorized to add only T.O.-authorized or MAJCOM-approved survival components or increase aircraft equipment configurations provided changes comply with AFI/AFMAN 11-301 series, flight manuals, and MDS AFIs. Applicable T.O.s, and allowance standards serve as the basis of authorization to obtain equipment required to meet mission needs. **(T-2)**

ADDED 8.1.8. Duplication of low density-high demand survival components, such as radios, is not authorized unless directed by MAJCOM or AOR SPINS. **(T-2)**

ADDED 8.1.9. The AF is governed by and subject to the U.S. laws, including approved treaties and international agreements. These agreements, such as NATO STANAGs, must be considered and implemented (as warranted) under combined operations. **(T-0)**

ADDED 8.1.10. AFE should expect uninjured aircrew/operators and equivalents from other NATO nations, other military alliances, and Department of Defense (DoD) agencies to process through the closest ACCA/ACCS. AFE personnel must direct injured aircrew to a military treatment facility. **(T-1)**

ADDED 8.1.11. Pilot and non-pilot unit responsibilities are outlined in DAFMAN 10-406, *Unit Type Code Management*.

ADDED 8.1.12. In addition to maintenance equipment and supplies, based on any LOGDET/MISCAP requirements, units must ensure any required portable/deployable equipment racks, workbenches, parachute packing tables, temperature/humidity detection device and storage bins are included in the mobility package(s). **(T-3)**

### **ADDED 8.2. Deployment Aircrew Flight Equipment Supply Custodians.**

ADDED 8.2.1. Ensure all deployed equipment transferred to deployed account or in deployment status is monitored for serviceability and accountability. **(T-2)**

ADDED 8.2.2. Ensure mobility packages that contain accountable equipment are kept secure and monitored to ensure equipment items are prepared for operational requirements. **(T-2)**

ADDED 8.2.3. Upon arrival of deployed assets/mobility bins, perform inventory to ensure all required assets are on hand and serviceable. Report shortages to the Flight NCOIC and deployed AFES or equivalent. **(T-2)**

ADDED 8.2.4. Ensure accountable equipment is issued to unit aircrew and tracked using the Aircrew Flight Equipment Records Management System (AFERMS) 1297 issue function. **(T-2)**

ADDED 8.2.5. Transfer accountable equipment from the deployed account to original owners account through redistribution order process in a timely manner. **(T-2)**

ADDED 8.2.6. Ensure all Equipment Authorization Inventory Data reportable equipment items contained within AFE UTC LOGDETs are designated as Use Code A Mobility and are properly reflected on DPAS, Property Accountability Module, Custodian Inventory Report. **(T-2)**

### **ADDED 8.3. AFE Operational Pre-planning and Coordination Considerations.**

ADDED 8.3.1. Consider the following documentation to assist mobility planning and preparations:

ADDED 8.3.1.1. AF Publications and Technical Data access.

ADDED 8.3.1.2. Turnover and lessons learned (trip reports and after-action reports).

ADDED 8.3.1.3. Hazardous Material and Declarations.

ADDED 8.3.1.4. ACCA/ACCS procedures, ACCA Activation, and Donning Checklists can be found on the USAF AFE SharePoint®.

ADDED 8.3.1.5. Munitions (Restricted lot listing, anti-robbery checklist, facility placards, etc.).

ADDED 8.3.1.6. Materiel Management (Supply) documents (e.g., deployed CIR).

ADDED 8.3.1.7. Checklists/Sign-out sheets (SF 701, Activity Security Checklist, TMDE, consolidated tool kit, mobility package etc.).

ADDED 8.3.1.8. Access to aircrew sizing data in case of resupply issues.

ADDED 8.3.1.9. Courier Letter for COMSEC transportation.

ADDED 8.3.1.10. COMSEC operations and procedures (Simple Key Loader availability/sustainment).

ADDED 8.3.1.11. Review of applicable Designed Operational Capability, OPLAN, and deployed Expeditionary Support Plans.

ADDED 8.3.1.12. Review of DRRS documentation and shortfalls.

ADDED 8.3.1.13. Review and validate personnel qualifications IAW CFETP 1P0X1, *Aircrew Flight Equipment*.

#### **ADDED 8.4. AFE Operational Considerations.**

ADDED 8.4.1. Personnel should consider the following when establishing operations:

ADDED 8.4.1.1. Secret Internet Protocol Router Network account access.

ADDED 8.4.1.2. Local tactical communications to support AFE operation (Land Mobile Radio, cell phone, etc.).

ADDED 8.4.1.3. Logistics, Supply, and Re-supply plan and coordination (e.g., Logistics Readiness Squadron, hospital, medical supply, Civil Engineering Emergency Management, Munitions Accountable Systems Officer etc.).

ADDED 8.4.1.4. Local facility and security coordination.

ADDED 8.4.1.5. Flight/Operations integration.

ADDED 8.4.1.6. Obtain/Establish Emergency action plan (bug-out kit, base defense, fire/emergency).

ADDED 8.4.1.7. Coordination with local fire rescue on aircraft and aircrew special considerations.

ADDED 8.4.1.8. Review theater Special Instructions (SPINS).

#### ***References:***

ADDED: AFI 10-201 *Force Readiness Reporting*, 22 December 2020

ADDED: DAFMAN 10-406, *Unit Type Code Management*, 06 October 2021



***Terms:***

CHANGED: In-Process Inspection (IPI) - A point during the rigging, installation, repair, assembly, or reassembly of systems or components which require a third-party validation in accordance with technical directives, or as directed by the AFE CFM or MAJCOM Functional Manager. IPIs must be accomplished by personnel qualified in accordance with Chapter 7.7.

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE MANUAL 11-301 Volume 1**

**31 MAY 2023**



**FLYING OPERATIONS**

**AIRCREW FLIGHT EQUIPMENT (AFE)**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 11-3, *Aircrew Flight Equipment (AFE)*. It establishes objectives, responsibilities, administrative, training, and quality assurance guidance for the aircrew flight equipment (AFE) career field and those entities supporting AFE operations. This publication applies to all civilian employees and uniformed members of the Regular Air Force (RegAF), the Air Force Reserve, the Air National Guard (ANG), and those who are contractually obligated to comply with Department of the Air Force (DAF) publications. This publication does not apply to the United States Space Force. This publication requires the collection and/or maintenance of information protected by the Privacy Act of 1974 authorized by 5 United States Code, Section 552a, as amended; 37 United States Code; Executive Order 9397, Numbering System for Federal Accounts Relating to Individual Persons, as amended; and AFPD 11-2. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Form 847s from the field through the appropriate chain of command. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. The authorities to waive wing or 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 Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the tier numbers. Submit

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

This document has been substantially revised and must be completely reviewed. Major changes include (1) expanded Quality Assurance (QA) and AFE technician training, (2) clarifies roles and responsibilities throughout AFE enterprise (3) removes all references to the Aircrew Flight Equipment Quality Assurance Program, Flight Equipment Records Management System and Air Force Technical Order (AFTO) Form 22, *Technical Manual (TM) Change Recommendation and Reply*, (4) removes other guidance which is no longer required, (5) adds premeditated parachute guidance.

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## Chapter 1

### OVERVIEW

#### 1.1. Mission.

1.1.1. Provide United States Air Force (USAF) aircrew, operators, and passengers safe and effective flight equipment, while establishing programs to increase performance. Protect and sustain human life during flight operations. Prepare aircrew and passengers to survive, affect their rescue and return to duty if forced to abandon the aircraft during an emergency. Provide aircrew protection from Chemical, Biological, Radiological and Nuclear (CBRN) weapons effects.

1.1.2. This instruction establishes minimum program requirements and outlines fundamentals, administrative and managerial requirements for all AFE operations.

#### 1.2. Program Objectives.

1.2.1. Increase capability of the total weapon system by enhancing and maximizing the performance and survivability of equipment users.

1.2.2. Reduce injuries and increase survival rates by providing aircrew and passengers with the most technologically advanced equipment available through quality systems training and maintenance.

1.2.3. Identify requirements for modernization and new equipment by analyzing customer-validated operational requirements, operational deficiencies, USAF suggestions and recommendations, USAF technical order (TO) recommended changes, aircraft mishap investigations, safety report recommendations, and joint developmental programs from other Department of Defense (DoD) agencies.

1.2.4. Train aircrew and operators to use flight equipment and aid passengers in a manner that reinforces recall during emergencies. Aircrew training will be accomplished using training equipment that mirrors operational equipment and, where practical, realistic scenarios in which aircrews are likely to encounter and aid passengers. Realistic training will ensure aircrew and passengers have confidence in their equipment and increase their ability to use it.

1.2.5. Provide units the suitable resources to perform optimal equipment maintenance. Train and qualify AFE technicians IAW Air Force specialty code (AFSC) 1P0X1 to maintain equipment in optimum condition as well as conduct AFE continuation training (AFECT).

1.2.6. Conduct aircraft mishap safety investigations and analysis where AFE is involved IAW DAFI 91-204, *Safety Investigations and Reports*.

#### 1.3. Supplements and Waivers.

1.3.1. Major command (MAJCOM) and field operating agency (FOA) functional managers (FM) may develop supplements to this Air Force manual (AFMAN) IAW DAFMAN 90-161.

1.3.1.1. If developed, coordinate, and forward a published copy of the supplement electronically or by mail to Air Force Deputy Chief of Staff, Operations, Director of Training and Readiness, Aircrew Performance Division (AF/A3TH), 1480 Air Force Pentagon, Washington, DC 20330-1480.

1.3.1.2. Wings or groups may supplement the basic instruction and the MAJCOM/FOA supplement to address wing/group specific requirements. Include the MAJCOM/FOA AFE office as part of supplement coordination process prior to final publication.

1.3.2. Unless otherwise specified, the Deputy Chief of Staff, Operations, Director of Training and Readiness (AF/A3T) is the waiver authority for the T-1 provisions of this publication. Requests for waivers must be submitted through the chain of command to the appropriate Tier waiver approval authority or if a non-tier requirement, to the publication OPR for consideration. **(T-1)**

1.3.2.1. Waiver requests will be submitted using DAF Form 679, *Air Force Publication Compliance Item Waiver Request Approval* and must be coordinated through the MAJCOM/FOA AFE FM. **(T-1)**

1.3.2.2. Waivers submitted from the unit level will be routed up through their respective chain of command to the appropriate Tier waiver approval authority (e.g., Headquarters Air Force (HAF), MAJCOM, numbered Air Force, squadron/group/wing commander, etc.). **(T-1)**

1.3.2.3. All waivers will be submitted by the group commander (CC), or equivalent, or higher. **(T-2)**

1.3.2.4. The waiver period will adhere to guidance in DAFMAN 90-161 or the stated period in the approved waiver request, whichever is shorter. **(T-1)**

#### **1.4. Communications.**

1.4.1. Subordinate units will ensure AFE matters, including TO recommended changes, deficiency reports, hazard reports, and other correspondence are channeled through their AFE MAJCOM/FOA staff. Only AFE Officers (AFEO), AFE Superintendents (AFES), and the AFE Contracting Officer Representative (COR), their equivalents or higher are authorized to contact respective MAJCOM/FOA staffs. Air Force Reserve Command (AFRC) AFES will work through the AFRC, Director of Operations, Resource and Requirements Division, Aircrew Flight Equipment Branch (AFRC/A3RF). ANG AFES will work through their Weapon System Team Chief prior to contacting the National Guard Bureau (NGB), Air National Guard Operations, Combat Air Forces Division, Operational Support Branch (NGB/A3OS) or MAJCOM AFE staff. **(T-2)**

1.4.2. At the wing level, direct communications with AF/A3TH, Air Logistics Center (ALC), system program offices (SPO) and depot offices are not authorized without prior approval and coordination with respective MAJCOM/FOA. **Exception:** In a valid emergency, contact with such agencies (ALC, SPO, depot etc.) is permitted; however, notify respective MAJCOM/FOA staff immediately.

1.4.3. Publish messages in a concerted effort to strengthen and clarify guidance, policy, and procedures to the maximum extent possible. Provide information copies to all command agencies involved when sending messages requiring an action by higher headquarters (HHQ). Units will ensure equivalent local coordination on messages prior to transmission when responding to coordinated messages. Lead commands will ensure messages are coordinated with AFRC/A3RF, NGB/A3OS, and stakeholder MAJCOMs, as applicable. Subordinate units



should consult AFRC/A3RF and NGB/A3OS, as applicable, concerning any policy or guidance message(s) where Air Reserve Component (ARC) applicability is in question.

1.4.3.1. HAF and MAJCOM messages can be directive or informational and must be complied with. AF/A3TH and MAJCOM staff will review messages for relevancy annually and will make every effort to merge guidance messages into parent publications during applicable reviews.

1.4.3.2. Compliance messages related to flight equipment from Air Force Life Cycle Management Center (AFLCMC), Human Systems Division (AFLCMC/WNU) will be coordinated and released to the field by AF/A3TH. Non-directive (procedural) messages related to flight equipment may be released directly to the field by AFLCMC/WNU.

1.4.4. Use written electronic communications to explain actions or request assistance from a higher echelon. Forward the request to the next HHQs for action and do not bypass any echelon. **(T-2)**

1.4.5. An organizational Non-classified Internet Protocol Router Network account is required for the AFEO/AFE CEM/AFES/AFE COR to respond to MAJCOM/FOA correspondence. These personnel are also required to have a personal Secret Internet Protocol Router Network account if their unit has a mobility commitment. **(T-2)**

1.4.6. Units will periodically check both the Headquarters AF Aircrew Flight Equipment SharePoint® (<https://usaf.dps.mil/sites/USAF-AFE/SitePages/Home.aspx>) and respective MAJCOM/FOA SharePoint® sites to ensure receipt of all applicable information. Membership is mandatory for all AFE Noncommissioned officers (NCO), Senior Noncommissioned officers (SNCO) and AFE CORs. Membership is encouraged for all others. **(T-2)**

## Chapter 2

### ROLES AND RESPONSIBILITIES

**2.1. Shared Responsibilities.** MAJCOMs, direct reporting units (DRU), FOA Director of Operations (A3), NGB, comparable positions in the Numbered Air Force, centers, and subordinate units, share responsibilities for execution of AFE policy.

**2.2. Air Force Director of Training and Readiness (AF/A3T) through Aircrew Performance Division (AF/A3TH).**

2.2.1. Is responsible for the Air Force (AF) AFE program.

2.2.1.1. The Chief, Aircrew Performance Division (AF/A3TH) oversees the entire AFE program.

2.2.1.2. A RegAF AFE chief master sergeant (1P000) will be assigned to manage AFE matters and serve as the AFE career field manager (AFECFM) for AFSC 1P0X1. An additional RegAF 1P091 will be assigned to assist in the management of AFE matters.

2.2.1.2.1. The AFECFM will chair the AFE Executive Committee (AFEEC), which will convene semiannually, and as required based on career field needs. Key membership includes the AFECFM, MAJCOM functional managers (MFM), NGB functional manager, and CMSgts (1P000). AFE senior master sergeants (SMSgt) may be authorized to attend by the AFECFM.

2.2.1.2.2. The intent of the AFE Executive Committee is to communicate, resolve operations and training issues (aircrew and technician), and develop courses of action regarding the USAF AFE program.

2.2.2. Coordinates on HAF, MAJCOM, NGB, direct reporting unit, and FOA operations and training issues (aircrew and technician).

2.2.3. Coordinate directly with the MAJCOM and FOA functional managers on program guidance interpretations, Self-Assessment (SA) programs, best practices, process improvements, and training.

2.2.3.1. AF/A3TH has functional AFE management and oversight responsibility over the 316 OSS AFE section for related programs to include (but not limited to): manpower, data calls, staff assistance visits (SAV) and Unit Effectiveness Inspections (UEI). The AFES will contact AF/A3TH for overall AFE program guidance or issues.

2.2.3.2. The 316 OSS AFE section will follow AF Global Strike Command's (AFGSC) applicable Mission Design Series (MDS) and equipment guidance to include (but not limited to): AFMAN 11-301 Volume 1, and AFMAN 11-301 Volume 2, *Management and Configuration Requirements for Aircrew Flight Equipment (AFE)*, supplements, TO options listing, and messages. Waiver and deviation requests will be routed through AF/A3TH to AFGSC AFE staff for resolution.

2.2.3.3. Refer to AFMAN 11-301V2 for AFE aircraft equipment configuration guidance.

2.2.4. Coordinates with other HAF offices that affect AFE programs to include, but not limited to, aircrew chemical defense equipment and procedures, Research and Development of AFE,

logistics, egress, Counter-CBRN defense doctrine, policy, training, and tactics, techniques, and procedures.

2.2.4.1. AF/A3T is the approval authority for AFE aircrew chemical, biological, radiological, nuclear (ACBRN) and aircrew contamination control area (ACCA) matters.

2.2.4.2. All ACBRN matters will be staffed by the responsible MAJCOM AFE function to the affected MAJCOM/NGB AFE staff office(s). Air Combat Command (ACC) Director of Operations, Aircrew Training and Operations Division (ACC/A3TO), and Air Force Global Strike Command, Director of Operations, Aircrew Performance Branch (AFGSC/A3OL) are the lead combat integrators for ACBRN/ACCA/aircrew contamination control station (ACCS). After consolidated coordination, the AFECFM will make a recommendation to AF/A3T for final decision. **Exception:** Air Force Special Operations Command is not required to coordinate on mission sensitive ACBRN/ACCA matters with lead combat integrators.

2.2.5. Hosts an annual Aircrew Protection Executive Council (APEC) and Aircrew Performance Working Group (APWG) in cooperation with AF Life Cycle Management Center Human Systems Division (AFLCMC/WNU), and all stakeholders involved with AFE and aircrew performance (AP) responsibilities. AF/A3TH will invite other interested functions, to include aircrew, if needed to resolve cross-functional issues with AFE.

2.2.6. Advises on AFE-related aircrew issues.

2.2.7. Briefs HAF directorates and other officials or organizations on AFE and training issues.

2.2.8. Serves on AF, joint, inter-agency, industry groups, boards, task forces, committees, and conferences dealing with AP operational issues.

2.2.9. Assists Air Education and Training Command in formulating, implementing, and evaluating formal training programs for AFE technicians.

2.2.10. Participates in MAJCOM and NGB AFE workshops/training events, as required.

2.2.11. Manages the USAF Outstanding AFE of the Year awards program, IAW DAFMAN 36-2806, *Military Awards: Criteria and Procedures*.

2.2.12. Monitors:

2.2.12.1. MAJCOM/FOA aircrew performance program (APP).

2.2.12.2. MAJCOM technical concerns affecting aircrew performance systems (APS) and subsystems, manpower resources, and equipment and intervenes as required.

2.2.12.3. Commercial-Off-The-Shelf (COTS) or COTS/Non-Developmental Items (COTS/NDI) that AF aircraft and aircrews might use as flight equipment.

2.2.12.4. Aircraft acquisition, conversion, and modification programs to ensure proper integration of flight equipment and weapon systems.

2.2.12.5. Development of Capabilities Development Document and development of Initial Capabilities Documents.

2.2.12.6. Aircraft mishap investigation and safety reports in which aircrew have used AFE assets or systems.

2.2.12.7. Fielding of new flight equipment.

2.2.12.7.1. Works with OPR and the applicable AFLCMC System Program Office (e.g., AFLCMC/WNU) to ensure they publish and distribute technical publications and training equipment before new flight equipment is fielded.

2.2.12.7.2. Ensures technical schools have assets to support new training requirements.

2.2.12.7.3. Evaluates manpower requirements for fielding of new flight equipment.

2.2.12.8. The Undergraduate Program Guidance Letter and shortfalls with formal AFE program quotas.

2.2.13. Provides oversight of AFE core competencies (technician/aircrew training, equipment utilization and quality assurance) IAW this publication, AFMAN 11-301V2, AFMAN 11-301, Volume 3, *Aircrew Flight Equipment (AFE) Contingency Operations and Planning*, AFMAN 11-301, Volume 4, *Aircrew Flight Equipment (AFE) Career Field Development* and applicable technical orders.

2.2.14. Monitors manpower, to include future sustainment requirements in response to flight equipment acquisition and sustainment programs. The establishment of a proper Acquisition and Sustainment Life Cycle Management system, from requirements to disposal, is imperative to the continued health of the AFE program. AFE must continually seek out opportunities to modernize the products and services they provide/maintain and ensure new technologies are explored to meet the demands of the warfighter.

2.2.15. Assigns lead commands (LC) for AFE items/types. AAFP 11-3 *Aircrew Flight Equipment*, establishes the following authorities and responsibilities for AFE and system LCs. LCs for weapons systems are contained in Department of the Air Force Policy Directive (DAFPD) 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities*. Specific flight equipment assignments are listed in AFMAN 11-301V2.

2.2.16. Develops HAF level AFE SAC using MICT. Checklists will be developed and utilized IAW AFI 90-201, *The Air Force Inspection System*.

2.2.17. Represents the 1P0X1 career field for Secretary of the Air Force, Inspector General (SAF/IG) areas of concern to facilitate awareness and understanding between inspections, audits, and internal controls.

2.2.18. Manages the Enlisted Development Team process for 1P0 AF Specialty IAW DAFI 36-2670, *Total Force Development* and AFMAN 11-301V4.

2.2.19. Oversees 1P0 Enlisted Grade Allocation Review and Chiefs Grade Allocation Review processes, when tasked through Air Force Manpower Analysis Agency, Director of Manpower Management Operations (AFMAA/MM).

2.2.20. Serves as the functional authority for the Aircrew Flight Equipment Records Management System (AFERMS) located in the Defense Property Accountability System (DPAS).

2.2.20.1. The AFECFM will establish an AFERMS program office.

2.2.20.2. Advocate for required resources and program support to include but not limited to, funding, hardware, system improvements, and manpower.

2.2.21. With MAJCOM coordination, develop a standardized Acceptable Quality List (AQL) for use across all AFE functions and publish on the USAF AFE SharePoint®.

### **2.3. Aircrew Performance Executive Council (APEC).**

2.3.1. The APEC is a colonel (O-6) level oversight and steering group that provides direction and advocacy for APPs. The APEC is a decisional body with representation from each MAJCOM Director of Operations (A3) and establishes APS acquisition and sustainment priorities. The purpose of the APEC is to prioritize and provide AF direction to resource sponsors and the single managers for APS acquisition and sustainment (AFLCMC/WNU Division Chief). Membership includes a MAJCOM/FOA O-6 (voting member) or designee, and the MAJCOM MFM or designee.

2.3.2. The objective is to advocate AF-sponsored APS research and development funding priorities, equipment procurement funding priorities, and APS related Integrated Process Team recommendations with user needs.

2.3.3. The APEC will operate under a charter approved by AF/A3TH and AFLCMC/WNU and will meet annually to receive updates on APS programs and plans, discuss issues, and establish an aircrew performance strategic plan (APSP) for future development and acquisition. In addition, the APEC will prioritize sustainment activities related to currently fielded equipment. APEC membership will include representation from all MAJCOMs, NGB/A3OS, and AF/A3TH.

2.3.4. AF/A3TH and AFLCMC/WNU co-chair the APEC. The AFLCMC/WNU Chief will arrange for a suitable conference site, announce the meeting via message and provide an agenda and specific details related to the meeting.

2.3.4.1. The AFLCMC/WNU Chief will establish and maintain a history, background, status, and way ahead for each item on the APEC listing.

2.3.4.2. AFLCMC/WNU along with the applicable MAJCOM 3-digit will advocate/publish finalized priorities listing through their requirements directorates and aircraft SPOs which will provide the necessary lead times to facilitate future airworthiness authority requirements and decisions.

2.3.5. Sub-groups of the APEC are the APWG, Aircrew Chemical, Biological, Radiological, Nuclear Equipment (ACBRNE) Working Group and the Isolated Personnel Working Group (IPWG). These working groups will present updated roadmaps, procurement and sustainment status, and career field issues to the APEC.

2.3.5.1. The APWG, ACBRNE Working Group and Isolated Personnel Working Group will operate under a charter approved by AF/A3TH. The ACBRNE Working Group is co-chaired with ACC/A3TO and AFGSC/A3OL while the Isolated Personnel Working Group is co-chaired with the Headquarters Air Force Special Warfare Directorate (AF/A3S), Survival, Evasion, Resistance and Escape Air Force career field manager.

2.3.5.2. Working groups will meet at least 90 days prior to the APEC. Additional meetings, whether in-person or via teleconference, will be scheduled at the discretion of the chairpersons.

**2.4. Air Force Chief of Safety (AF/SE) through the Air Force Safety Center, Aviation Safety Division (AFSEC/SEF).**

- 2.4.1. Provides statistical data, analysis, and recommendations on all aircraft mishap investigations or incidents involving AFE.
- 2.4.2. Monitors the AF APP to ensure aircrews maintain safety standards.
- 2.4.3. Provides technical assistance on request to aircraft mishap investigation boards.
- 2.4.4. Advises the APEC and APWG when necessary.
- 2.4.5. As requested, attends MAJCOM meetings, briefs attendees on aircrew use of flight equipment, their performance during aircraft mishap investigations, and general safety concerns.
- 2.4.6. Attends AF, joint, inter-agency, and industry meetings, boards, task forces, and conferences that deal with AFE.

**2.5. Assistant Secretary of the Air Force for Acquisition, Directorate Global Power Program (SAF/AQP).**

- 2.5.1. Monitors the development and acquisition of new flight equipment (Program Element Code 0604706F, 0702833F & 0702833).
- 2.5.2. Assigns an officer to advise the APEC and ensures the AFE Program Management Directive contains the research, development, and acquisition strategies and priorities of the APEC.
- 2.5.3. Monitors APS development and demonstration programs aimed to satisfy validated user requirements.
- 2.5.4. Provides representation to the APEC and APWG.

**2.6. Department of the Air Force Surgeon General (DAF/SG) through the Air Force Medical Readiness Agency, Chief of Aerospace Medicine (AFMRA/SGP).**

- 2.6.1. Oversees the medical aspects of the APP.
- 2.6.2. Sets guidelines for infection control.
- 2.6.3. Provides representation to the APEC and APWG, when requested.
- 2.6.4. Controls training products and reporting criteria for laser exposure incidents according to AFI 48-139, *Laser and Optical Radiation Protection Program*.

**2.7. Air Force Life Cycle Management Center (AFLCMC).**

- 2.7.1. Conducts an AFE science and technology program to ensure technologies will exist to satisfy future AF requirements.
- 2.7.2. Through the Air Force Life Cycle Management Center, Human Systems Division (AFLCMC/WNU) for acquisition management:
  - 2.7.2.1. Air Force Materiel Command (AFMC) is the acquisition and initial procurement authority for APS. It manages specific AFE programs through developmental phases and initial procurement. Additionally, they communicate APEC acquisition and sustainment priorities to platform SPOs.

2.7.2.2. Maintains operational safety, suitability, and effectiveness compliance of developmental and future flight equipment items IAW AFI 63-101\_20-101, *Integrated Life Cycle Management* and AFMCI 63-1201, *Implementing Operational Safety Suitability and Effectiveness (OSS&E) and Life Cycle Systems Engineering (LCSE)*.

2.7.2.3. Manages, reviews, maintains, and provides recommended updates to the Master Configuration List for all flight equipment related systems published in TO 14-1-1, *U.S. Air Force Aircrew Flight Equipment Clothing and Equipment*. The Master Configuration List will provide a list of all authorized subsystems and equipment in the AF AFE inventory.

2.7.2.4. Maintains and updates AF TO 00-25-06-2-1, *Work Unit Code (WUC) Intermediate Maintenance, 412A Aircrew Flight Equipment Manual*, when new equipment is fielded. LC will sponsor the update if new equipment items are command specific. AFMC will deconflict the creation/assignment of work unit code of flight equipment with the aircraft SPO or responsible agency.

2.7.2.5. Ensures flight equipment systems and subsystems are integrated with newly developed technologies, systems, and subsystems.

2.7.2.6. Directs engineering/product engineering evaluations and analysis with the purpose of providing safe-to-fly recommendations to aircraft SPOs for airworthiness certifications IAW DAFI 62-601, *Airworthiness*. Upon request, advises MAJCOMs on Assumptions of Risk for flight equipment not approved safe-to-fly.

2.7.2.7. Provides coordination to aircraft SPOs for the acquisition of common flight equipment systems and subsystems of commercial aircraft converted for AF missions.

2.7.2.8. Manages procedures for the acquisition of common flight equipment items through the COTS/NDI programs. Monitors and tracks the procurement, approval, and capability of COTS/NDI systems used to meet formally documented AF requirements to include urgent operational needs, capabilities development documents, and those submitted via AF Forms 1067.

2.7.2.9. Works with and monitors other services' flight equipment acquisition and developments to avoid duplication of effort in programs.

2.7.2.10. Develops a technology transfer plan to move exploratory and advanced development flight equipment technologies into full-scale development.

2.7.2.11. Develops procedures to control and coordinate the configuration of developmental flight equipment subsystems and equipment among MAJCOMs and the NGB.

2.7.2.12. Encourages operational input to AFE programs by ensuring MAJCOM, NGB, and AFLCMC representatives attend key acquisition events.

2.7.2.13. Co-authors in conjunction with AF/A3TH the development, publishing, and maintenance of an aircrew performance strategic plan outlining APS acquisition and sustainment strategies. The aircrew performance strategic plan will use APEC-directed priorities as a basis for the strategic.

2.7.2.14. Serves as the approval authority for implementation of new aircrew and aircraft installed flight equipment items through initial procurement and accomplishment of the transfer management plan.

2.7.2.15. Conducts initial procurement to MAJCOM coordinated and agreed upon initial operational capability (IOC) levels and accomplishes requirements outlined in the transition support plan.

2.7.2.16. Establishes procedures for intra-command coordination and configuration control of developmental AP subsystems and equipment.

2.7.2.17. Assists MAJCOMs and NGB in determining training requirements for developmental systems.

2.7.2.18. Assists MAJCOMs and NGB in developing initial production funding plans for each AP endeavor.

2.7.2.19. Provides technical assistance and laboratory analysis to aircraft mishap safety investigation boards as requested and to the Defense POW/MIA Accounting Agency, assisting in determining the status of DoD warfighters missing in action.

2.7.2.20. Ensures all AFLCMC/WNU-managed developmental and COTS/NDI AFE programs include and meet the TO acquisition requirements set forth in AFI 63-101\_20-101.

2.7.2.21. Provides representation and the status of their APP to the APEC and APWG.

2.7.2.22. Is recognized as the milestone decision authority (MDA) on AFE acquisition research and development efforts except for CBRN, which is the Joint Program Executive Office.

### 2.7.3. Sustainment management through AFLCMC/WNUS:

2.7.3.1. The sustainment authority for APS, managing specific flight equipment items providing sustainment support and final systems disposition.

2.7.3.2. Maintains operational safety, suitability, and effectiveness compliance of fielded flight equipment IAW AFMCI 63-1201.

2.7.3.3. Provides logistics support of AFE systems to include AF premeditated parachuting equipment and related ancillary components.

2.7.3.4. Monitors the Army MILSUIE, Tank-Automotive Armament Command (TACOM), TACOM Unique Logistics Support Application, Safety First and Logistics Support Activity and provides USAF-unique guidance to the field for Army-managed parachute systems, when applicable.

2.7.3.5. Serves as the engineering support activity (ESA) for fielded aircrew and aircraft installed flight equipment under management by AFLCMC.

2.7.3.6. Establishes procedures for intra-command coordination and configuration control of fielded AP subsystems and equipment. Ensure user input requests are forwarded to MAJCOM/FOA staffs prior to scheduled meetings and updates will be presented to the APWG.



2.7.3.7. Assists MAJCOMs/FOA in determining training requirements for system changes.

2.7.3.8. Provides inspection intervals for shelf life of aircrew performance equipment.

2.7.3.9. Leads effort to develop and submit sustainment engineering requirements plans.

2.7.3.10. Assists MAJCOMs/FOA in developing out-year funding plans for fielded APS.

2.7.3.11. Is recognized as the Product Group Manager and System Sustainment Manager for all flight equipment systems and sub-systems.

2.7.3.12. Notifies LCs of flight equipment items that have been determined to no longer be sustainable and provide disposition instructions when items are removed from service and/or demilitarized to ensure they are disposed of properly.

2.7.3.13. Loads all AFE-specific time compliance technical orders (TCTO) and one-time-inspections into AFERMS prior to field distribution.

## **2.8. Air Force Operational Test and Evaluation Center.**

2.8.1. Plans and conducts realistic, objective, and impartial operational test and evaluation to determine the operational effectiveness and suitability of AF systems and their ability to meet mission needs.

2.8.2. Advises MAJCOMs and NGB on operational test issues.

## **2.9. Major Commands (MAJCOMS) and National Guard Bureau (NGB).**

2.9.1. Will assign a full time AFE MAJCOM/FOA FM (AFSC 1P000) to manage the APP. MAJCOM/FOA FM may delegate certain responsibilities to Numbered Air Force points of contact (POC) or Weapon System Team Chief. Weapon System Team Chief will be appointed in writing by the MAJCOM/FOA FM.

2.9.2. Provide representation and the status of their APP to the APEC and APWG.

2.9.3. Manage MAJCOM AFE policy responsibility. Establish MAJCOM specific AFE programs according to AFIs, AFMANs and applicable MAJCOM and NGB instructions.

2.9.4. Provide effective guidance to field units and coordinate with LCs as necessary to resolve queries and policy conflicts.

2.9.5. Guide MAJCOM Inspector General (IG) functions. If MAJCOMs have funded 1P0 IG positions, ensure AFE subject matter experts (SME) are permanently assigned to the IG function and perform in-person and virtual inspections of AFE programs.

2.9.6. Establish and publish a TO options list for their respective MAJCOM annually. **Note:** ARC units will follow their respective lead MAJCOM TO options list. To ensure units are provided standardized guidance, MAJCOM/FOA and ARC AFE staff will coordinate TO options list prior to release. The MAJCOM TO options list is available on the MAJCOM SharePoint®/EIM website. ARC exceptions will be identified as “Not Applicable (N/A) to AFRC” or “N/A to ANG”. Any ARC unit requests for deviations will be routed to MAJCOM/FOA (AFRC/A3RF or NGB/3OS) for coordination/approval.

2.9.7. Review aircraft mishap investigation and incident reports (command specific) involving AFE and resulting recommendations. Select qualified AFE technicians to augment mishap review boards as required.

2.9.8. Review and validate AFE authorization IDs of ASC 450, *Aircrew Flight Equipment and Survival Evasion Resistance Escape (SERE)*; and AFE authorization ID sections of AP 538, *Security Police Equipment, Organizational Small Arms Equipment, Military Dogs, Associated Equipment, and Civil Disturbance Equipment*, for accuracy and adequacy. Work with Pilot/Non-Pilot units and applicable MAJCOM staff to address required changes to be presented to the platform authorization manager. Attend formal authorization platform review, as required.

2.9.9. Assist in identifying operational requirements and provide SME level input in the preparation of Joint Capabilities Integration Development System documents, as required.

2.9.10. Maintain integrity of the operational safety, suitability, and effectiveness baseline for all AFE IAW AFI 63-101\_20-101 and AFMCI 63-1201.

2.9.10.1. Ensure newly developed (COTS/NDI) flight equipment and modifications to existing flight equipment pursued by units for AF aircraft and aircrew use are evaluated and approved by the appropriate organization.

2.9.10.2. LCs will advocate for the sustainment of equipment/systems and support Air Force Materiel Command, Director of Logistics, Product Support Division (AFMC/A4F) to ensure all requirements associated with equipment/system sustainment receive equitable consideration in AFMC's programming, budgeting, and execution of resources to establish depot capabilities and sustain equipment/systems under Centralized Asset Management and Active-Duty Cost-Per-Flying Hour programs.

2.9.11. Evaluate performance of AFE deliverables related to acquisition, research, and development contracts.

2.9.12. Participate in periodic Research, Development, Test and Evaluation program reviews as requested by AFMC or other joint agencies.

2.9.12.1. Provide and coordinate the inclusion of qualified AFE expertise early in the requirements definition phase and is involved throughout the Research, Development, Test and Evaluation and acquisition process.

2.9.12.2. Assigned technicians will be able to:

2.9.12.2.1. Participate in laboratory research and development of AFE and human-related studies.

2.9.12.2.2. Ensure the fit, adjustment, assembly, inspection, and maintenance of flight equipment necessary to support the related studies.

2.9.13. Submit TO recommended changes for flight equipment on both fielded items and those involved in test and evaluation.

2.9.14. Draft, edit, and review reports/maintenance procedures necessary to support both fielded and prototype flight equipment under development.

- 2.9.15. Participate in flight safety evaluation boards assessing safety of flight equipment prior to flight-related studies.
- 2.9.16. Support system program offices during acquisition-related activities to include review, edit and draft of acquisition-related documents.
- 2.9.17. Participate in APEC and APWG activities as defined in the applicable charter(s) to ensure executive leadership is appraised of emerging technologies and to address equipment and technical issues within the AFE community.
- 2.9.18. Assess operational utility evaluation (OUE) results affecting AFE.
- 2.9.19. Encourage AFE volunteers to participate as test-participants during AFE- related studies, if appropriate.
- 2.9.20. Monitor tests involving live test subjects utilizing flight equipment.
- 2.9.21. Construct/modify test assets IAW approved test plans to support laboratory flight equipment studies.
- 2.9.22. Participate in and monitor Operational Test and Evaluation of flight equipment; if the item is of an MDS-specific nature, the LC for that MDS (refer to DAFPD 10-9) will oversee the process with AFMC.
- 2.9.23. Monitor the introduction of new weapons systems into the command that require AFE. Inventory and monitor modification programs of existing aircraft to ensure timely integration of flight equipment and training. Coordinate with the applicable SPO to ensure AFE issues are addressed.
- 2.9.24. Attend AF, joint, inter-agency, and industry meetings, groups, boards, task forces, committees, and conferences dealing with developing, modifying, or researching flight equipment.
- 2.9.25. Conduct MAJCOM/FOA workshops and attends other AFE-related workshops as required.
- 2.9.26. Coordinate on MAJCOM AFECT program requirements.
- 2.9.27. Coordinate AFE formal training requirements with the 436 Training Squadron (TS) and/or Directorate of Personnel staff when submitting class quotas for technicians to attend formal training courses.
- 2.9.28. Convene an AFE Training Review Board, as required.
- 2.9.29. Provide guidance to units using, controlling, and safeguarding flight equipment.
- 2.9.30. Evaluate Enhanced Technical Management System (ETIMS) Recommended Change (RC) submissions, IAW TO 00-5-1, *AF Technical Order System*, MAJCOM procedures and **Chapter 3** of this publication.
- 2.9.31. Monitor command manning levels and coordinate with MAJCOM/FOA, Director of Manpower and Personnel Programs (A1) to ensure AFE manning is optimized. Provide mission impact analysis to unit leadership-initiated manpower authorization change requests.
- 2.9.32. Establish requirements for the AFE COR concerning any organization with contractors/service providers not covered in **paragraph 2.19**.

2.9.33. Monitor the forecasting of replacement requirements for calendar time-change items IAW TO 00-20-9, *Forecasting Replacement Requirements for Selected Calendar and Hourly Time-Change Items*.

2.9.34. Monitor Deficiency Reports applying to the APS.

2.9.35. Monitor overall unit effectiveness and compliance, to include programs, Inspector General (IG) visits, staff assistance visits (SAV), and virtually in MICT.

2.9.36. Will assist AF/A3TH in developing a standardized list of minimum AQLs for unit implementation. AQLs will address quality control inspections (QCIs), personnel evaluations (PEs), and periodic program reviews (PPRs) however, other inspections may be included. MAJCOMs will solicit feedback from their respective units when developing AQLs.

2.9.37. Host an annual working group with MAJCOM/FOA representatives involved with AP responsibilities. The intent of this working group is to foster a spirit of cooperation, keep lines of communication open, and resolve AP issues that are cross-functional in nature. Forward appropriate issues to AF/A3TH for resolution.

2.9.38. Conduct site visits to subordinate units for providing HHQ level assistance and to remain connected to unit level requirements.

2.9.39. Review and update Mission Capability statements and manpower detail biennially or as needed on applicable unit type codes (UTC) with AFE technicians and or AFE Logistics Detail (LOGDET).

2.9.40. Ensure LOGDET is accurate and consistent with current authorization platform policy statements in AFI 10-403, *Deployment Planning and Execution* and AFI 25-101, *War Reserve Materiel (WRM)*. Upon receipt of a Logistics Force Module material listing from LOGDET manager, conduct a thorough comparison of the UTC LOGDET against appropriate authorization platform (Readiness Code "A" items) for consistency to ensure the pilot unit has not exceeded authorizations. Functional area managers (FAM) will use DPAS-Force System Management (DPAS-FSM) module, or request assistance from the force system manager when comparing the LOGDET against the appropriate authorizations platform. Logistics Force Module Material Listings will be provided to Manpower and Equipment Force Packaging Responsible Agency and/or Air Staff FAM on a first-time report of a newly developed LOGDET, when designated pilot units submit their UTCs to the LOGDET manager because of semi-annual LOGDET reporting, and upon request.

2.9.40.1. Coordinate all UTC developments, changes, and cancellations with using MAJCOMs/FOA, NGB/A3OS, AF/A3TH, and pilot units/non-pilot units if tasked in unit type availability. **Note:** Not applicable to Air Force Special Operations Command.

2.9.40.2. Assists the AFE CBRN Liaison located at Air Force Civil Engineer Center, Emergency Management Division (AFCEC/CXR) by validating unit-level ACBRN massive defense sustainment requirements (D/D-1 Bag). Submit annual sustainment forecasts for processing of equipment shortages/overages, repair parts requirements and support equipment requests not later than 1 December each year.

2.9.40.2.1. ACBRN equipment redistribution will be utilized to fulfill shortages prior to funding being allocated. Redistribute assets within 30 days of notification. Any deviation to the execution timeline will be reported to and approved by AFCEC/CXR.

2.9.40.2.2. Purchase authorizations to fill shortages will be processed and funding allocation notices will be sent to the unit after redistribution actions are completed. Purchase authorized assets within 30 days of notification. Any deviation to the execution timeline needs to be reported to and approved by AFCEC/CXR.

2.9.40.2.3. Submit requests outside of the above forecast cycle to AF/A3TH.

2.9.41. Address all AFE related Air Force Cost Analysis Improvement Group/Cost Per Flying Hour (AFCAIG/CPFH) program requirements with responsible MAJCOM entities and AF/A3TH as needed.

2.9.42. Serve as 1P0X1 FAM IAW DAFI 10-401, *Operations Planning and Execution* on all MAJCOM-tasked 9AL Series UTC AFE issues. Provides AFSC 1P0X1 inputs to 3\* Series Aviation UTC FAMs and 7\* Series UTC FAMs. **Note:** Not applicable to Air Force Special Operations Command.

2.9.43. Assists subordinate units with review of AFI 25-201, *Support Agreements Procedures* and review host-tenant agreements involving AFE functions if required.

2.9.44. Review, manage, and utilize AFERMS data in performance of duties and responsibilities to include but not limited to sustainment matters, asset management, redistribution, forecasting, unit compliance, budgeting, accountability, and data calls.

2.9.45. AFMC may supplement guidance to this publication for contract AFE functions, under the supervision of Defense Contract Management Agency in order to further define and/or clarify service guidance compliance as outlined in Defense Contract Management Agency Instruction 8210.1.

2.9.46. AFMC AFE FM maintains operations control of ALC AFE sections.

## **2.10. Operations Group Commander (OG/CC), Wing Director of Operations (A3), or equivalent will:**

2.10.1. Appoint an aircrew officer who is qualified and current in their primary aircraft of assignment to serve as the AFEO. AFEOs should serve a recommended 24-month period but no less than 12 months in the position. Except for the ANG, AFEO positions are earned authorizations and must be reflected on the unit manpower document (UMD). Special warfare units may utilize Combat Rescue Officers/Special Tactics Officers/Air Force Special Warfare Officers (19ZXX) to fulfill AFEO duties.

2.10.2. If earned via applicable manpower determinants on the UMD, appoint a 1P000 Chief Master Sergeant (CMSgt) to manage the wing AFE program with the AFEO and be identified as a “supervisor” on the UMD through coordination with A1 personnel. If an AFE Chief Master Sergeant is not earned, appoint an AFE (1P0X1) SNCO to serve in their place with the duty title AFE superintendent. A civil service or contractor equivalent may be appointed as the AFES/AFE COR only when a funded UMD SNCO superintendent (supervisor) position does not exist. Position Description must state required responsibilities.

2.10.3. Ensure the AFEO/AFE CEM/AFES/AFE COR, personnel, functions, and manpower positions to include all military, civil service, and contractor equivalent are assigned and organizationally aligned (both administratively and operationally) to the operations support squadron (OSS). The AFE Flight will be a single stand-alone flight with the office symbol "OSL." **Note:** Assigning AFE technicians to flying units in a “with duty at” status does not

comply with this policy and is not authorized. **Exception:** RegAF Total Force Integration Association (TFIA) personnel will normally be assigned to the flying squadron as well as AFRC flight test units aligned under a Flight Test Group/Flight Test Squadron/Flight Test Flight. Air Force Special Warfare (AFSPECWAR) AFE positions, personnel, and functions will remain aligned/assigned to the AFSPECWAR unit earning them. ALC AFE technicians will be aligned under the applicable maintenance group (MXG), as ALCs do not have an OSS function. MAJCOMs may supplement this paragraph to meet unique mission requirements, as required.

2.10.3.1. Notwithstanding **paragraph 2.10.3**, MAJCOM/CCs are authorized to organize forces in the most advantageous manner to support their MAJCOMs' mission execution by aligning administrative & operational control of AFE personnel (AFSC 1P0X1 or civilian/contractor equivalent) within operational aviation squadrons. MAJCOMs desiring to make this change will have a MAJCOM commander (MAJCOM/CC) endorsed and AF/A1M approved Organizational Change Request IAW AFI 38-101, *Manpower and Organization* and do not require a waiver to **paragraph 2.10.3**.

2.10.3.2. The AFEO/AFE CEM/AFES is responsible to the group commander (or equivalent) for the management of the wing/group AFE program to include manpower, training, rotations of AFE technicians, and budget.

2.10.4. Ensure aircrew are provided required flight equipment and that configurations support mission requirements.

2.10.5. Ensure contracted organizations comply with the provisions of their existing contracts. Contracted documentation will be modified to acknowledge the transfer of functional liaison to the group commander. Contracted organizations may be utilized for AFE maintenance, training, and/or resources for military and civil service technicians in all aspects of the career field IAW career field education and training plan (CFETP) AFSC 1P0X1 *Aircrew Flight Equipment*, as applicable. **Note:** All civilian and contracted organizations performing AFE functions are subject to HHQ level assistance from Director of Operations (A3).

2.10.6. Ensure at least one fully qualified 1P071 or civilian/contractor equivalent is appointed and resourced (tools, training, etc.) to fill the noncommissioned officer in-charge (NCOIC), AFE Quality Assurance (NCOIC, AFE QA) position with authority and visibility over all AFE activities. The AFE QA program will reside and be organizationally aligned to the OSS AFE Flight. **Exception:** Commanders desiring to align QA personnel outside of the OSS AFE Flight must meet **paragraph 2.10.3.1** requirements.

2.10.6.1. AFE programs with up to 29 1P0X1s will assign one 1P071 member to execute an effective QA program. AFE programs with 30 or more 1P0X1s assigned will assign up to two 1P071 members to execute an effective QA program.

2.10.6.2. MAJCOMs and NGB/A3OS may determine applicability of QA programs for units with seven (7) or less full-time technicians assigned.

2.10.7. Ensure the AFECT program is actively managed, and instructors are qualified and certified.

2.10.8. Ensure funding is available to maintain emergency procedures trainers (EPT) and related training equipment to support the wing AFE training program. Contact Air Combat

Command, Training Support Squadron, Detachment 9 (ACC/TRSS/ATD), Luke AFB, AZ for major overhaul, modification, or reconfiguration to EPT. F-35 Post Ejection Survival Training (PEST) and EPT trainers are managed and resourced by the F-35 Joint Program Office as requested through Air Combat Command, Directorate of Plans, Programs and Requirements, F-35 System Management Office Division Chief (ACC/A5F).

2.10.9. Ensure adequate distraction-free training facilities, sites and equipment are available to conduct all AFECT events.

2.10.10. Ensure AFE facilities meet standards in DAFMAN 32-1084, *Standard Facility Requirements*. Ensure all flight equipment is stored/maintained within approved AFE facilities and IAW applicable technical data. This will include adequate facilities to support premeditated personnel and cargo airdrop requirements. AFRC units will also refer to AFRCH 32-1001 *Standard Facility Requirements*.

2.10.10.1. Ensure AFE facilities are adequate to afford maximum protection of flight equipment and sufficient in size to support equipment inspection, storage (to include mobility bins), training, aircrew ready room, and office space for program management. Facilities must satisfy requirements identified in 13C/15X/14D-series TOs and 32/91-series publications.

2.10.10.2. Ensure Memorandums of Agreement (MOA) are established for use of facilities external to those that are unit owned to support AFE equipment maintenance operations.

2.10.11. Ensure funds are allocated for the continued management of all AFE programs and contingency plans. This includes having access to a government purchase card for the Cost Per Flying Hour (CPFH), Operations & Maintenance (O&M), medical supply, ACBRN and premeditated personnel and cargo airdrop requirements.

2.10.12. Support sending, as a minimum, AFEO/AFE CEM/AFES/AFE COR to annual AFE workshops, symposiums, and training review boards.

2.10.13. Ensure AFE technicians are not assigned duties that will detract from wartime proficiencies and requirements IAW AFMAN 36-2100, *Military Utilization and Classification*.

2.10.14. Ensure flight equipment utilized for flight operations are approved safe-to-fly IAW AFLCMC/WNU's [SharePoint®](https://usaf.dps.mil/sites/21562/AFE/SitePages/Home.aspx) at <https://usaf.dps.mil/sites/21562/AFE/SitePages/Home.aspx>, authorized by applicable authorization platforms, TOs, aircraft-specific manuals, F35A-PFE-001, *F-35A 'Lightning II', Pilot Flight Equipment Configuration*, and this instruction. Coordinate all other items with the appropriate MAJCOM/FOA AFE focal point to determine safe-to-fly need. See TO 14-1-1 and AP 016, *Special Purpose Clothing and Personal Equipment*, for authorized equipment and clothing.

2.10.15. Ensure aircrew are focal points for Flight Duty Uniform items. Units requesting procurement, deviation, or new approvals will refer to TOs, AFMAN 11-301V2 and DAFI 36-2903, *Dress and Personal Appearance of United States Air Force and United States Space Force Personnel*, and route questions through local force support and logistics readiness squadrons to the Air Force uniform office at Wright Patterson AFB. **Note:** Not applicable to Integrated Aircrew Ensemble.

2.10.16. Ensure an AFE liaison is appointed by the Aeromedical Evacuation (AE) squadron commander (SQ/CC) for AFE integration purposes.

2.10.17. Ensure only premeditated parachuting equipment listed on the Air Force Personnel Parachute Program's Approved for Use List in accordance with AFI 10-3503 *Personnel Parachute Program* is procured for official use or placed under AFE oversight.

2.10.18. Assign AFE technicians to support Temporary Duty (TDY) flying operations in excess of seven days or operations utilizing helmet-mounted devices. **Exception:** N/A to Mobility AF home station departure/return, with multi-leg missions as part of a single mission.

**2.11. Operations Support Squadron Commander (OSS/CC), Air Force Special Warfare (AFSPECWAR) Commander or equivalent will:**

2.11.1. Be responsible for the wing/group AFE program to include manpower, training, rotation of technicians, and budget, etc. In addition, monitor related contractor-operated locations.

2.11.2. Ensure individuals consuming prescribed or over-the-counter medications are screened by medical providers prior to performing any type of maintenance, rigging or inspections, including IPIs/QCIs, on any equipment designed to save or sustain human life.

2.11.3. Ensure AFE functions are advised of changes to applicable contingency plans in time to ensure required equipment is available for deployment.

2.11.4. Designate the AFE CEM, AFES, AFE Flight Chief (AFEFC), AFE COR, and NCOIC, AFE Quality Assurance (NCOIC, AFE QA) to the wing Inspection Team (WIT) for wing Commander's Inspection Program (CCIP) duties via appointment letter. **Note:** The wing, group, or squadron WIT appointment process may fill this requirement. Units with 8 or less full-time 1P0 personnel assigned will have a minimum of 1 person assigned to the WIT. Ensure AFE WIT member(s) provide AFE exercise scenarios and inspection data points based on wing IG guidance and plans.

2.11.5. Fund and provide personal protective equipment to all assigned AFE personnel using O&M expense account non-CPFH program items, e.g., steel toed boots, hearing protection, rain and cold weather clothing items needed in garrison or deployed, regardless of duty location.

2.11.6. Ensure results of AFE assessments are input into MICT.

2.11.7. Ensure e-Tools (and/or equivalent) that contain instructions, publications, manuals, procedures, and time compliance technical orders (TCTO) pertaining to the inspection, maintenance, and use of assigned flight equipment, systems, and subsystems are maintained and funded.

2.11.8. Budget for and ensure adequate funding is provided to sustain non-CPFH program items (testers, tools, facilities, etc.).

2.11.9. Fund for unit AFE Rigger representation at US Army Quartermaster and MAJCOM-hosted tri-annual Malfunction Review Boards (MRBs).

2.11.10. Ensure AFECT is accomplished IAW **Chapter 5** of this instruction.



2.11.11. Exempt all trainees in 5-level upgrade training from additional duties until upgrade is complete and all other newly assigned technicians (through Permanent Change of Assignment /Permanent Change of Station) for the first 120 days of assignment, or until fully duty position qualified, whichever occurs first.

2.11.12. Notify MAJCOM/FOA when AFE technicians cannot attend scheduled courses, e.g., AFE Program Manager Course. The annual allocation of school quotas is based on the number used, and repeated cancellations reduce the number available for future use. CCs must carefully review these cancellations and provide the MAJCOM with cancellation justification.

2.11.13. Coordinate Manpower Change Requests with MAJCOM FM to assess mission impacts prior to submission.

2.11.14. Ensure users of premeditated parachuting equipment, to include parachutes and ancillary equipment listed in **Chapter 7** are trained on inspection requirements/intervals, proper handling, and storage of all life-sustaining related equipment prior to issue. Commanders will ensure personally issued parachuting equipment such as helmets, altimeters, and NVDs are available to AFE personnel for periodic inspection/maintenance.

## **2.12. Flying Squadron Commanders will:**

2.12.1. Identify instructor aircrew, officer and/or enlisted, to instruct Emergency Egress (LL02), Emergency Egress, Non-Ejection Seat (LL03) and Emergency Egress with ACBRN (LL05) training to the AFEO.

2.12.2. Ensure assigned aircrew and/or personnel flying onboard unit aircraft are properly equipped and trained IAW AFMAN 11-301 Volumes 1-4.

2.12.3. Support test and evaluation events on flight equipment when requested by HHQ.

2.12.4. Ensure all aircrew in-process and out-process through the AFE section upon assignment or PCS. This may require aircrew to provide data from outside agencies (optometry, etc.). In addition, ensure aircrew issued individual equipment process through AFE before and after flying duties.

2.12.5. Ensure crewmembers return all previously signed out equipment to the AFE section at the end of each flying day or upon returning from alert, TDY, deployments, exercises, etc.

2.12.6. Notify the AFE section in advance of any changes in mission/configuration requirements.

2.12.7. Ensure aircrew members perform preflight inspections and operational checks using in-shop test equipment on all flight equipment prior to the first flight of the day.

2.12.8. Coordinate with the OSS/CC on AFE program requirements or issues as needed. This may include, but is not limited to, aircrew equipment, technician training, readiness reporting, QA/quality control (QC) trend analysis and AFECT programs.

## **2.13. AFEO/AFE Chief Enlisted Manager (CEM) will:**

2.13.1. Plan, direct, organize, manage, evaluate, and oversee the AFE program.

2.13.2. Be responsible for ensuring all wing-level and below AFE duties and responsibilities are accomplished IAW AFMAN 11-301 Volumes 1-4 publications.

2.13.3. As senior AFE representatives, serve as the focal point for group/wing/MAJCOM/FOA communications.

2.13.4. When approved equipment modifications are made that impact ground egress, ejection procedures, or affect crew comfort, etc., the AFEO (or AFEO-appointed aircrew), will fly with the new equipment to identify required changes to operational and training procedures. This duty may be delegated to squadron level rated officer for those units with more than one MDS. Results and feedback will be documented and forwarded to the MAJCOM to review for possible operational and training procedure changes.

#### **2.14. AFE Superintendent (AFES) will:**

2.14.1. Perform AFE CEM duties when one is not assigned.

2.14.2. Execute AFE programs IAW AFMAN 11-301 Volumes 1-4.

2.14.2.1. TFIA: The host unit (unit that owns the aircraft) AFES/AFE COR will be responsible for the overall execution of the AFE program (host unit and TFIA unit).

2.14.2.1.1. The host unit AFES will provide operational direction (OPDIR). OPDIR includes the authority to assign tasks, designate objectives, and provide direction necessary to accomplish the mission. Supervisors in functionally integrated shops will exercise OPDIR over subordinate technicians assigned to their activity, regardless of component, to accomplish the mission.

2.14.2.1.2. The senior ranking tenant unit NCO/SNCO will assist the Host AFES with AFE program management and fulfill titles, roles, and responsibilities IAW AFMAN 11-301 Volumes 1-4.

2.14.2.1.3. If the TFIA unit is administratively matrixed to a geographically separated parent wing (i.e., at a different base), the parent OG AFES will assist in ensuring TFIA specific tasks separate from the host unit (data calls, ACBRN funding validation/execution) are completed. The parent unit AFES will assist the TFIA unit as needed.

2.14.2.1.4. Parent unit AFES will visit their TFIA units periodically and ensure visits are part of the annual travel budget request.

2.14.3. Plan and manage the organizational structure for AFE functions, including functional responsibilities, manpower/staffing requirements, and assignment of AFE technicians to and within the wing, IAW guidance contained in this instruction.

2.14.3.1. Vet and appoint, via an appointment letter, the following AFE positions:

2.14.3.1.1. AFE Flight Chief (AFEFC).

2.14.3.1.2. NCOIC, AFE QA (unless organizationally aligned outside the OSS IAW [paragraph 2.10.3](#)).

2.14.3.1.3. Lead AFECT Instructor (AFECTI).

2.14.3.1.4. AFE Lead Trainer (AFELT).

2.14.4. Plan and budget for the MAJCOM AFE Training Review Board & Workshop, unit funded formal training courses (e.g., AFE Program Manager Course and Life Sciences

Equipment Investigation Course), MAJCOM SAVs, AFE workshops and new equipment training to the maximum extent possible.

2.14.5. Ensure AFE technicians are trained and qualified IAW this instruction, CFETP 1P0X1 and DAFI 36-2670, *Total Force Development*. Additionally, ensure AFE technicians meeting special/unique training requirements have applicable SEIs in their records and are assigned to duty positions maximizing those qualifications (e.g., premeditated personnel parachute inspection/packing, AFSPECWAR equipment maintenance). When moving these personnel, supervision should carefully consider the Airman's career development, equipment/shop continuity and return on investment of time and funds spent training and qualifying these individuals.

2.14.6. Ensure units have required flight equipment to support daily operations and unit-supported contingencies.

2.14.7. Ensure that AFE sections maintain a current file of electronic publications, TOs, manuals, and messages pertaining to issue, inspection, maintenance, and use of assigned flight equipment, and ensure compliance with instructions contained therein.

2.14.7.1. Establish a familiarization program to ensure all AFE personnel are familiar and knowledgeable with the TO library, TO options, publications, manuals, and messages applicable to daily duties. These products will be checked for currency by technicians prior to performing equipment maintenance.

2.14.7.2. With the NCOIC AFE QA, reviews MAJCOM TO options list to determine unit choices and publish within 10 workdays (ARC 15 workdays); ensuring data is current and accessible to each technician performing equipment maintenance. NBG units will publish prior to next Regular Scheduled Drill (RSD). ARC units will utilize the lead MAJCOM TO options list.

2.14.8. Ensure deficiency reports are submitted through Joint Deficiency Report System IAW TO 00-35D-54 *USAF Materiel Deficiency Reporting, Investigation, and Resolution* for all flight equipment or system deficiencies. Ensure applicable MAJCOM/FOA staff is provided a copy of any report not specifically addressed to their office.

2.14.9. Ensure hazards are communicated using AF Form 457, *USAF Hazard Report* as required by DAFI 91-204. AF Forms 457 will be evaluated by the AFES/AFE COR prior to submittal to the next higher level. The host base safety office will review, and process reports as required.

2.14.10. AFES/AFE COR conduct self-assessments (SA) of overall AFE program IAW this publication, AFI 1-2, *Commander's Responsibilities*, and the CCIP. See [Chapter 6](#) for self-assessment execution.

2.14.11. Perform on-site evaluations of units supporting premeditated parachute programs at a minimum of 12-month or 18-months for geographically separated units. Document on-site evaluations via Memorandum for Record (MFR) and forward to squadron and group commanders, as well as to MAJCOM AFE staff.

2.14.12. Prepare and evaluate AFE related portions of local support agreements. The AFES is responsible for conducting an annual review. Units providing host support to tenant units will maintain authorized flight equipment according to support agreements and directives.

2.14.13. Ensure all equipment modifications are approved IAW TO/COTS manual guidance, official TO content managers or MAJCOM/FOA guidance. **Note:** F-35 units will follow programmatic guidance concerning approved modifications.

2.14.14. Ensure that AFERMS is the standard used to document QA/Quality Inspector (QI) and quality control inspections (QCI). AF Form 2420, *Quality Control Inspection Summary*, is authorized but will be in addition to AFERMS. **Exception:** ALC AFE related work centers are exempt from updating AFERMS for equipment they do not own (i.e., depot status). However, they will establish and utilize AFRC/AFMC approved processes for QA/QC. **Note:** ALC locations may utilize occupational series 1910 personnel to conduct QA responsibilities in AFE related work centers; however, those personnel must be qualified IAW guidance within this instruction, or they must use qualified personnel (QIs/SMEs) to assist in satisfying program requirements.

2.14.15. Monitor the status of headquarters (HQ) SAVs, IG unit effectiveness inspection capstone/on-site visits, outside agency evaluations as-well-as flight-identified deficiencies and observations. Evaluate deficiencies for action and communicate to the AFEO, AFE CEM and/or commander regarding training needs, policy changes, and MICT input. Corrective Action Plans for IG-identified deficiencies will be developed by the AFES as prescribed by governing instructions, to reflect status and actions taken.

2.14.16. Be responsible to the commander for the overall management and control of the AFE QA program unless the positions are organizationally aligned outside the OSS IAW **paragraph 2.10.3**.

2.14.16.1. With the NCOIC, AFE QA, develop and implement AFE QA program policy and training through AFE Flight Operating Instructions (OI) or Standard Operating Procedures (SOP). Utilize the following resources to construct policy: appointment letters, technician training record programs, master training plan (MTP), master task list (MTL), and AFERMS.

2.14.16.2. Designate via appointment letter a 1P071 or civilian/contractor equivalent AFE technician to fill the NCOIC and ANCOIC (if applicable), AFE QA position(s) with authority and visibility over the AFE QA program. Contractors filling NCOIC/ANCOIC duties must have those duties listed in the performance of work statement (PWS). The NCOIC/ANCOIC, AFE QA will be aligned and report directly to the AFES. **Exception:** AFE QA personnel not aligned with the OSS AFE Flight IAW **paragraph 2.10.3.1** will determine alignment requirements.

2.14.16.3. Develop a rotation plan for the NCOIC, AFE QA. Appointed NCOIC, AFE QA will be a minimum of one year. Considering mission requirement and career development, limit to a maximum of two years. Short tour assignments  $\leq 1$  year may deviate from the 1-year minimum requirement, if needed. **Exception:** N/A for civil service technician assigned to a specific position in their 1910/4818 series core document

2.14.16.4. Designate via appointment letter 1P071 AFE Quality Inspectors (QI). QIs may be used to augment the NCOIC, AFE QA in various AFE QA functions if needed. Based on manpower or 7-level shortages, highly experienced and qualified 1P051s may be appointed to perform QI duties when approved by the AFES.

2.14.17. Designate via appointment letter 1P071/civilian/contractor equivalents to perform IPI duties. Highly experienced and qualified 1P051s may be appointed to perform IPIs when authorized by the AFES/AFE COR and based on manpower or 7-level shortages. **Note:** See [Chapter 7](#) for premeditated parachute IPI requirements.

2.14.17.1. Ensure IPI qualified technicians only perform IPIs on equipment they are qualified on, IAW CFETP 1P0X1 requirements.

2.14.17.2. Review and update (as applicable) premeditated parachute IPI and MO qualifications/currencies every 90 days via designation/qualification letter signed by the squadron commander who has administrative control of AFE Rigger UMD positions.

2.14.18. Along with the AFELT, determine additional AFE technician training task evaluation (TE) requirements. **Exception:** AFRC/A3RF will determine TE criteria for AFRC units.

2.14.19. Ensure AFE WIT members have access to MICT and provide AFE inspection support based on wing IG guidance and plans. If held, AFE WIT should participate in the unit Commander's Inspection Management Board (CIMB) to account for functional deficiencies. AFE WIT members should make every effort to ensure unit commanders are informed of AFE deficiencies prior to attending the wing CIMB.

2.14.20. Ensure personnel performing QA, IPI and QI duties have a working knowledge of this instruction as it applies to their specific role. Use [Table 6.1](#) as a guide for citing appointment and training task qualifications.

2.14.20.1. Ensure NCOIC, AFE QA and QI are trained and certified using formal evaluation and the QA Certification Course PowerPoint® located on the AF/A3TH SharePoint®. Document training and evaluation in member training records.

2.14.21. Ensure PEs of Red X qualified 1P0X1s are conducted IAW [Chapter 3](#).

2.14.22. Determine the desired number of AFE technicians for attendance at formal courses IAW [Table 4.1](#) Formal Air Education Training Command/MAJCOM/FOA courses will be requested through owning MAJCOMs. ANG units will forward requests through their unit training manager (UTM) and courtesy copy NGB/A3OS.

2.14.23. Appoint qualified AFE accident/safety board investigators (MDS-specific, when applicable) for use during mishap investigations and base Disaster Control Group functional input during peacetime accidents.

2.14.24. Contact their applicable MAJCOM/FOA when contractors/vendors contact them regarding product use. No personnel are authorized to take receipt or place into service commercial products for testing or integration without HHQ coordination and approval.

2.14.25. Ensure items not maintained by AFE are not commingled and stored with flight equipment (e.g., CBRN ground crew ensemble). (See AFMAN 11-301V2).

2.14.26. Provide required personnel and equipment readiness status to the commander (or designate representative), for Defense Readiness Reporting System, Air Force Input Tool regarding AFE Mission Essential Task assessments.

2.14.27. Requisition Out-of-Cycle or supplemental munitions requirements through the supporting munitions accountable systems officer. Review DAFMAN 21-201, *Munitions*

*Management*, for requisition procedures. AFES/AFE COR will also inform MAJCOM/FOA of shortages and status.

2.14.28. Ensure units maintain a master configuration data list to assist in determining unit equipment authorization inventory data (EAID) DPAS-Property Accountability (DPAS-PA) equipment requirements and authorization levels in DPAS-FSM are correct.

2.14.29. Gather squadron-level acquisition and sustainment recommendations from unit AFE and aircrew to identify AFE systems requirements. MAJCOMs and NGB/A3OS will task each wing/unit for inputs in preparation for annual APWG & APEC meetings. Submit operational AFE requirements for evaluation and action through the OG/CC. ANG units will forward requirements through respective Weapon System Team Chief to NGB/A3OS for visibility and assistance.

2.14.30. Establish liaison and coordinate with other organizations supporting the AFE function to ensure equipment is adequately maintained.

2.14.31. Report time change component requirements IAW TO 00-20-9 and HHQs directives, when solicited.

2.14.32. Ensure manning documents are accurate. Assign personnel to the manpower positions based on their rank and skill level. At bases with multiple Personnel Accounting Symbol (PAS) codes within a single command, the AFES will determine which PAS code the gaining member is initially assigned based on the overall needs of the base AFE program. The AFES is authorized to change the initial PAS assigned using local procedures established by the force support squadron. **Exception:** Members selected to manning point “E” positions will not have their unit of assignment altered without billet owner or responsible Air Force Personnel Center assignment cell concurrence.

2.14.33. Ensure a restricted and suspended munitions listing is available and current using Global Ammunition Control Point. The listing will include all applicable munitions. Update the listing upon release of new suspended/restricted instructions if applicable. Ensure the listing is available to technicians where explosive operations are performed.

2.14.34. Ensure compliance with all safety standards to include, but not limited to, AF Occupational, Safety, and Health Standard Training, documentation, and increased precautions for storage and handling of lithium batteries.

2.14.35. Ensure equipment involved in physiological incidents is properly managed IAW **Chapter 3** of this instruction.

2.14.36. Ensure support/test equipment remain serviceable (e.g., CSEL radios, loaders, test sets and beacon interface) IAW applicable TOs. AFE support/test equipment that come with laptops will only be used for their intended purpose and must remain off networks and ADPE accounts to eliminate software/operating system update conflicts. No additional programs/software unrelated to the computer’s primary use will be installed.

2.14.37. Ensure AFE technicians are knowledgeable of unit operations plans (OPLAN), designed operational capabilities statements, special instructions (SPINS), Mission Essential Tasks and UTCs as they relate to the operation and maintenance of flight equipment at deployed and/or in-place contingency response locations.

2.14.38. Ensure AFE personnel do not restrict aircrew members from the use of approved MDS equipment (to include bladder relief devices), modifications, or available options. If warranted, related resource issues or considerations will be routed to the owning squadron commanders (OSS and/or flying squadron) for determination.

2.14.38.1. Appoint a female liaison as the local focal point for female aircrew specific matters. Female liaisons will be listed on the MAJCOM's unit roster. If no female AFE personnel are assigned, or if in the best interest of the unit mission, a female AFE officer, aerospace physiology personnel, or flight surgeon may be trained on local processes and appointed. Liaisons will communicate aircrew AFE equipment or support issues to the AFEO or AFE CEM/AFES for action. Any matter that cannot be resolved at the local level will be forwarded to the responsible MAJCOM staff for action.

**2.15. AFE Flight Chief (or AFEFC equivalent) will:**

2.15.1. Monitor and manage daily operations of the AFE flight and ensure scheduled equipment inspections are properly accomplished.

2.15.2. Monitor modification programs to ensure satisfactory integration of flight equipment with aircrew recovery systems. Advise AFES/AFE COR/AFEO and NCOIC AFE QA of program delays or supply problems as they occur.

2.15.3. Ensure compliance with all AFE administrative, training, clothing, equipment, and mobility requirements as designated in the applicable chapters of this instruction.

2.15.4. Forward unit level acquisition and sustainment requirements to the AFES/AFE COR/AFEO. These inputs are the root of flight equipment requirements that feed the APEC process.

2.15.5. Ensure compliance with AFI 10-3503, *Personnel Parachute Program*, as applicable.

2.15.6. Ensure compliance with DAFMAN 13-217, *Drop Zone, Landing Zone and Helicopter Landing Zone Operations*, as applicable.

2.15.7. Ensure the capability exists to clean, repair, package and perform in-shop inspection on aircraft thermal curtains and thermal radiation barriers, if required.

2.15.8. Ensure only authorized repairs and modifications are performed on flight equipment IAW applicable TOs and AFMANs. Owing individuals are responsible for sewing on rank and hook/pile tape as required by DAFI 36-2903. **Note:** F-35 units will follow programmatic guidance.

2.15.9. Only provide TO-authorized local manufacture requests for AFE-related assets in order to meet unit flying mission requirements.

2.15.9.1. Local manufacture projects related to flight equipment include items maintained internally by the AFE section, as well as TO/AFMAN directed local manufacture requests for AFE integration to supported aircraft.

2.15.9.2. Commanders should outsource requirements and/or contract commercially local manufacture jobs when AFE does not have the capability (e.g., material, manpower, expertise) or if the work interferes with AFE primary functions. It is the responsibility of the requesting agency to seek alternate solutions through commercial sources.

- 2.15.10. Evaluate the extent of damage and wear to material and equipment IAW TOs and determine whether to repair or replace based on cost and man-hours used in the repair process.
- 2.15.11. Contact the AFEO/AFE CEM/AFES/AFE COR when contractors/manufacturers contact them directly regarding product use.
- 2.15.12. Develop and coordinate a work center specific local explosive safety program through the AFES and wing safety office.
- 2.15.13. In consultation with AFE QA, recommend tasks that require additional QC measures to the AFES for local policy modification.
- 2.15.14. At least monthly, participate in scheduling meetings with Egress and Wing Plans Scheduling & Documentation, as applicable.
- 2.15.15. Assist the AFES/AFE COR during SAs. Ensure QA PEs are included in the SA. **Exception:** N/A to ANG single MDS units.
- 2.15.16. Ensure AFE technicians are initially qualified on core tasks and identified MDS specific requirements IAW CFETP 1P0X1. Q&A sessions alone do not qualify as TE or qualification; however, Q&A may be used in conjunction with TEs to validate a person's qualifications. TE and qualification will include a total review of all applicable guidance and associated TOs. Document the TE in approved electronic training records systems (e.g., myTraining).
- 2.15.17. Ensure mission termination inspections (MTI) are accomplished on pre-positioned flight equipment for accountability and serviceability.
- 2.15.18. Notify AFEO/AFE CEM/AFES immediately when aircrew fail to return all previously signed out flight equipment to AFE at the end of each flying day (or upon returning from alert, TDY, deployments, missions, exercises, etc.) for required inspection, maintenance, and fit.
- 2.15.19. Provide training on the functional use and operation of flight equipment that may be encountered during local rescue operations when requested. Local agencies should be apprised of any changes in equipment type or operation. Equipment used for training must mirror operational equipment and be made to Fire Department personnel as required.
- 2.15.20. Ensure AFE flights maintain a nominal stock of flight equipment (bench stock and mobility packages), to include urinary devices, to cover standard available size ranges and all genders. To support aircrew with AFE requirements outside of the standard size range or gender specific requirements, units must ensure that a reasonable stock of all approved support items are maintained for the duration of the member's assignment.

## **2.16. NCOIC/Assistant NCOIC, AFE Quality Assurance (NCOIC/ANCOIC, AFE QA).**

- 2.16.1. Will be 100% qualified on all MTL requirements in their respective AFE program. If there are two QA personnel assigned, the two may be 100% qualified combined temporarily but will each attain 100% qualification according to **Ch. 4** requirements. When the NCOIC, AFE QA is not 100% qualified, the AFES will use QI augmentees to attain 100% task coverage until the NCOIC, AFE QA is 100% qualified. The AFES will ensure QA personnel become 100% task qualified within 6 months of appointment. ARC personnel will be 100% task qualified within 12 months of appointment.



- 2.16.2. Promotes quality among AFE personnel, identifies performance shortfalls and areas of needed training. Additionally, NCOIC, AFE QA works with the AFES, AFEFC, and NCOICs to develop recommended solutions to improve operational performance.
- 2.16.3. Validates the effectiveness of the QC program by developing a sampling plan and periodically checking equipment that has already been QCI'd.
- 2.16.4. Enforces current AFE policies, regulations, and guidance established by higher headquarters directives.
- 2.16.5. Provides direct oversight of deficiencies and observations identified during AFE QA inspections, SAVs, IG events, outside agency evaluations, and unit self-assessments (MICT SACs) until corrective actions have been completed. Provide the AFES monthly updates until corrected.
- 2.16.6. Implements AF/A3TH AQLs for PEs, PPRs, and equipment QCI in coordination with the AFES/AFE COR.
- 2.16.7. Implements IPI tasks using worksheets found in applicable TOs.
- 2.16.8. Ensures PEs are conducted as part of the QA program IAW **Chapter 6**. The AFES/AFE COR and NCOIC, AFE QA will determine the type of PEs to be conducted, how many PEs are required, and who will be evaluated. At a minimum, every assigned technician who performs routine inspections and every QI will receive one PE annually. **Note:** PEs can cover routine inspections and quality control knowledge simultaneously.
- 2.16.9. Performs and documents PPRs IAW **Chapter 6** at established frequencies.
- 2.16.10. Monitors detected safety violations (DSV), technical data violations (TDV), and unsatisfactory condition reports (UCR) IAW **Chapter 6**
- 2.16.11. Compiles all data from the month's inspections, assessments, evaluations, and reviews for the monthly quality assurance report (M-QAR) development.
- 2.16.12. Serves as the AFE product improvement manager. Provide guidance, evaluate, process, submit and track all recommended changes (RC), Engineering Technical Assistance Requests (ETAR), deficiency reports, and suggestions affecting flight equipment in cooperation with the AFES/COR. All RCs, ETARs, and suggestions pertaining to flight equipment will be evaluated by the AFES prior to submittal to the applicable MAJCOM staff for review. **Exception:** ANG will follow wing guidance. If wing guidance is not provided, comply with this paragraph.
- 2.16.13. Will be knowledgeable in the Joint Deficiency Report System and TO 00-35D-54 *USAF Materiel Deficiency Reporting, Investigation, and Resolution*.
- 2.16.14. Monitors aircrew chemical, biological, radiological, and nuclear (ACBRN) assets monthly via AFERMS and Joint Acquisition Chemical Biological Radiological Nuclear Knowledge System (JACKS) data (<https://jacks.jpeocbd.osd.mil>) for serviceability updates. Monthly monitoring can be delegated to designated section supervisors.
- 2.16.15. Coordinates and approves on all requests for AFE locally designed tools or equipment. Maintain records of all approved locally manufactured, developed, or modified tools/equipment and include pictures/drawings and a description of use for each item used in AFE. Any locally manufactured tools/equipment used on aerospace equipment must be

approved IAW DAFI 21-101, *Aircraft and Equipment Maintenance Management*. **Note:** This paragraph does not apply to specific tools and equipment authorized in applicable technical data. **Exception:** Process Engineering is the authority for approving locally designed tools and equipment at Air Logistics Center locations.

2.16.16. Maintains a warranted tool program that tracks and manages all tools, PMEL, etc. purchased that has a manufactures warranty.

2.16.17. Monitors TO distribution accounts, authorized as their own TO distribution office, at each AFE section assigned within the OG using the web-based Enhanced Technical Information Management System (ETIMS). Electronic TOs will be filed and maintained IAW TO 00-5-1. Ensure AFE sections maintain a current file of electronic publications, TOs, and manuals pertaining to issue, inspection, maintenance, and use of assigned flight equipment, and ensure compliance with instructions contained therein.

2.16.17.1. When updating a TO library, ensure each device or e-folder is labeled with the most recent upload/download date so technicians know they are using the most current library.

2.16.17.2. Manage TCTO programs to ensure satisfactory integration of flight equipment with aircrew recovery systems, in cooperation with the AFES/AFE COR. Advise AFES/AFE COR of program delays or supply problems as they occur, and upon completion of the TCTO. Local products may be used to track TCTOs but all TCTOs will be tracked in AFERMS. Maintain file copies of all applicable TCTOs for two years after rescission date.

2.16.17.3. Review MAJCOM TO options lists posted on the respective MAJCOM SharePoint®.

2.16.18. Ensure an account for computer program identification number (CPIN) requirements are established in ETIMS and that an Electronic Software Download System is established to receive software updates when released. Links are available in the applicable TO and/or AF/A3TH SharePoint®.

2.16.19. Review AutoTAR requests prior to submitting IAW TO 00-25-107.

## 2.17. In-Process Inspector (IPI).

2.17.1. 1P071/civilian/contractor equivalents will perform IPI duties IAW **Chapters 6 & 7**. IPI personnel will only perform IPIs on equipment they are qualified on, IAW CFETP 1P0X1 requirements. **Exception:** Highly experienced and qualified 1P051 technicians may be appointed to perform IPIs when approved by the AFES/AFE COR based on manpower or 7-level shortages. **Note:** See **Chapter 7** for premeditated parachute IPI requirements.

2.17.2. Documents and reports discrepancy trends identified during the IPI to the NCOIC, AFE QA for inclusion in training sessions and the M-QAR.

## 2.18. Quality Inspector (QI).

2.18.1. 1P071 AFE Quality Inspectors (QI) will only perform quality control inspections (QCIs) on equipment they are qualified on, IAW CFETP 1P0X1 requirements and **Chapter 6**. **Exception:** Based on manpower or 7-level shortages, highly experienced and qualified 1P051s may be appointed as QIs when approved by the AFES/COR. QIs may augment the

NCOIC/ANCOIC, AFE QA in the various AFE QA functions. **Exception:** ALC locations may utilize qualified personnel (QIs/SMEs) to assist in satisfying program requirements.

2.18.2. QIs will aid the NCOIC, QA in identifying trends for inclusion in training sessions and the M-QAR.

2.18.3. A QI does not have the authority to override another QI's QCI without consent from the original QI or the QA office.

## **2.19. Contracting Officer Representative (COR).**

2.19.1. The purpose of this section is to provide overarching AFE COR responsibilities across different functions supporting multiple missions. As required, MAJCOMs may supplement this section to adjust responsibilities based on differing organizational structures or size/scope of the contracted function.

2.19.2. Serves as the AFE focal point for wing/group/MAJCOM/FOA communications and day-to-day operations.

2.19.3. Must receive a written designation of their authority to act on behalf of the contracting officer IAW *Defense Federal Acquisition Regulation Supplement (DFARS)* Subsection 201.602-2.

2.19.4. Complete Phase 1 and Phase 2 Initial COR training for the Contracting Officer (CO). COR will receive required surveillance and technical training prior to performing duties.

2.19.5. Oversee and document overall contractor performance on a daily, monthly, quarterly, semi-annual, and annual basis. Develop a random sampling plan and accomplish random sampling of contracted services.

2.19.6. Develop the master training plan, encompassing/covering all requirements identified in the PWS or statement of work (SOW).

2.19.6.1. The AFE Chief COR will train and certify CORs to evaluate the tasks and requirements listed in the PWS or SOW. The Chief COR will accomplish annual over-the-shoulder evaluations on each assigned COR.

2.19.6.2. Ensure AFE COR training is documented in approved electronic records systems (i.e., myTraining).

2.19.7. Develop a quality assurance surveillance plan (QASP) detailing how the PWS or SOW will be surveilled by the COR.

2.19.8. Coordinate with the contractors, functional commanders, and contracting officers to resolve problems.

2.19.9. Develop and endorse the Monthly Surveillance Schedules and maintain copies of all schedules on file for the life of the contract.

2.19.10. Prepare and endorse monthly Performance Assessment Reports (PAR's) and summary of COR Surveillance Activities.

2.19.11. Review the contractor's quality management program used to control quality and comply with contract requirements. Validate that the system adheres to all aspects of the PWS

or SOW, to include sections A through M of the contract IAW the Inspection of Services clause in FAR 52.246.

2.19.12. Assist the CO with accomplishing annual Contractor Performance Assessment Rating Reporting System (CPARS) grade/rating.

2.19.13. Develop Independent Government Estimates (IGE) and evaluate contractor proposals, as required.

2.19.14. Act as member of the Multi-Functional Team (MFT), as required.

2.19.15. Issue Letters of Concern (LOC) or Corrective Action Requests, when required.

2.19.16. Validate that AFE government furnished equipment (GFE) is inventoried, accounted for and properly disposed of by the contractor when directed by the CO.

2.19.17. When directed by the CO, assist with contract closeout upon completion of the PWS/SOW.

2.19.18. Plan and budget for the annual AFE Training Review Board & Workshop, unit funded formal training courses (e.g., AFE Program Manager Course and Initial Physiological Hypoxia Training) and any AFE workshops to the maximum extent possible.

2.19.19. Ensure all contractors, internal and external new hires for this career field are graduates of the AFE (1P0X1) prior Aircrew Life Support (AFSC 1T1X1) and/or Survival Equipment (AFSC 2A7X4) technical training courses (or equivalent), sister-service equivalent courses. Federal Aviation Administration certified riggers may be used in premeditated units as an equivalent certification. Ensure these requirements are written into the position(s) requirement, contract, and/or into the SOW as applicable.

2.19.20. If not already determined by the CCIP, AFE COR will conduct local reviews annually and monitor MICT deficiencies monthly until resolved. Re-accomplish local reviews within 180 days after appointment of a new COR. At a minimum, utilize AF/A3TH and MAJCOM SACs in MICT as AFE management tools. Use MICT to communicate all aspects of program management successes and limiting factors to the chain- of-command. Units may create locally developed checklists, as they deem necessary per AFI 90-201 guidance. Locally developed checklists are managed at the unit level and fall within the CCIP.

2.19.21. Monitor status of discrepancies identified during no-notice inspections of AFE programs, SAVs, UEIs, SAs and outside agencies until corrective actions have been completed. Corrective actions will be documented as prescribed by governing instructions or as required to reflect status and actions taken. AFERMS and MICT are the primary tracking systems for all discrepancies.

2.19.22. Ensure units have required flight equipment to support unit contingencies.

2.19.23. Ensure contractors monitor the TO distribution account, authorized as their own TO distribution office, at each AFE section assigned within the OG using the web-based Enhanced Technical Information Management System (ETIMS). Electronic TOs will be filed and maintained IAW TO 00-5-1. Ensure contractors maintain a current file of electronic publications, TOs, manuals, and messages pertaining to issue, inspection, maintenance, and use of assigned flight equipment, and ensure compliance with instructions contained therein.

**2.20. Lead AFE Continuation Training Instructor (AFECTI).**

- 2.20.1. The Lead AFECTI will serve as primary AFECTI when conducting LL04 and LL06.
- 2.20.2. Ensure that AFES annually approved lesson plans are used during AFECT events by all AFECTI.
- 2.20.3. Provide SME input for the development/review of lesson plans and Emergency Action Plans (EAP) to include the integration of newly fielded equipment and/or components.
- 2.20.4. With AFES guidance and direction, conduct and manage AFECTI training, qualifications, training equipment and classroom or areas used for instruction.

**2.21. AFE Lead Trainer (AFELT).**

- 2.21.1. The AFELT will serve as primary technician training program manager and lead technician trainer.
- 2.21.2. Ensure AFE technician training is conducted by qualified and appointed trainers.
- 2.21.3. Ensure AFE technician training is performed using the applicable TOs/COTS manuals, joint technical data and associated support equipment and tools.
- 2.21.4. Ensure the status and progress of AFE technician training is documented via myTraining.
- 2.21.5. Coordinate and/or perform TEs on assigned AFE technicians in training.
- 2.21.6. Schedule AFE personnel for training, as required, IAW [Table 4.1](#).
- 2.21.7. Ensure technicians remain current in aircraft egress/cockpit familiarization training for ejection seat aircraft IAW MDS specific guidance if required locally. This ensures technicians are available to respond to flight equipment serviceability concerns on Egress systems as required. AFE technicians assigned to LFA units will remain current in emergency ground egress training with a 24-month recertification. AFE technicians will get initial and refresher emergency ground egress training by attending LL03.

**2.22. Section Chief/NCOIC, AFE Section.**

- 2.22.1. Will monitor and manage daily operations pertaining to the section they are assigned, (e.g., daily workloads, flying schedule coverage, leave, and appointments).
- 2.22.2. Ensure vehicles (full size preferred) are maintained and operated IAW AFI 24-302, *Vehicle Management*.
- 2.22.3. Ensure AFE section access is restricted from thoroughfare to the maximum extent possible. This is to prevent tampering, damage, and/or contaminants getting on equipment.
- 2.22.4. Evaluate the extent of damage and wear to material and equipment IAW TOs and Joint Technical Data to advise the AFEFC whether repair or replacement is most appropriate.
- 2.22.5. Maintain accurate copies of AFTO Form 392, *Parachute Repack Inspection and Component Record*, for all versions of parachutes maintained. **Note:** Computer database equivalent (e.g., AFERMS) may be used in lieu of AFTO Form 392.
- 2.22.6. Ensure the equipment of newly assigned aircrew is initially inspected and configured for local mission requirements and aircrew accomplishes an LL07 fit check prior to first flight.

## 2.23. Aircraft Commanders.

2.23.1. Ensure prepositioned flight equipment is serviceable, inventoried, and certified on the AFTO Form 46, *Prepositioned Aircrew Flight Equipment* (or computer-generated equivalent), prior to local flights, prior to departing home station for TDY or deployment, or when the aircraft configuration changes or aircraft crew changes while TDY or deployed. Notify the AFE section of any onboard equipment shortages or unserviceable conditions. **Note:** discrepancies on AFTO Form 781A, *Maintenance Discrepancy and Work Document*.

2.23.2. Ensure any missing flight equipment and/or enroute configurations are annotated on AFTO Form/ 781A and AFTO Form 46 (or computer-generated equivalent). Entries will include as much information as possible to assist AFE in locating and recovering missing flight equipment (e.g., station where equipment was discovered missing, names, agencies and persons contacted, etc.). For determining when a financial liability investigation (formerly Report of Survey) is required, see DoD 7000.14-R *Financial Management Regulation*, Volume 12, *Special Accounts, Funds, and Programs* Chapter 7, *DoD Financial Liability for Government Property Lost, Damaged, Destroyed, or Stolen*.

2.23.3. Ensure flight equipment, (e.g., survival kits, life preservers, anti-exposure suits, EPOS, parachutes, etc.), is returned to their proper storage locations.

## 2.24. Aircrew Members.

2.24.1. Will obtain personal flying clothing (e.g., flight suits, jackets, boots, gloves, etc.) from assigned/attached squadron supply and maintain accountability and serviceability.

2.24.1.1. Reference TOs 14P3-1-112, *Maintenance Instructions - Nomex Flt Gr Coveralls, Types CWU-27P and CWU-28P and Gloves, Type GSFRP-2, Jacket, Flyers Summer Type CWU-36P, Jacket, Flyers Winter Type CWU-45P, Hood, Winter, Flyers (CWU-17P Jacket), Trousers, Flyers, Extreme Cold Weather, CWU-18P*, TO 14P3-5-111, *Aviation-Drew Systems, Aircrew Personal Protective Equipment, (Clothing)*, 14-1-1, DAFI 36-2903, and the Human Performance and Protective Systems SharePoint®, <https://usaf.dps.mil/sites/21562/AFE/SitePages/Home.aspx> for authorized flight clothing uniform approval and wear of Nomex® flight gear. Do not use nylon/polyester or unauthorized undergarments in situations of increased risk of fire exposure (forward operations, flying, fuel handling, etc.). AFMC's Air Force uniform office at Wright Patterson AFB is the focal point for garments authorization. **Exception:** F-35 units will use F-35 program guidance.

2.24.2. Ensure flight equipment is made available to AFE technicians with sufficient time to conduct TO required inspections, maintenance, and fitting requirements prior to flight.

2.24.2.1. Provide prescription optical inserts/outserts used with flight equipment to AFE personnel upon request, if worn.

2.24.3. Will notify AFE technicians prior to going TDY with flight equipment to ensure inspections are current through projected return date.

2.24.4. Ensure only flying helmets, oxygen masks, and padded night vision goggle cases are carried in the main compartment of the helmet bag to and from the AFE facility. Carry the headset in the helmet bag outer pocket. **Note:** F-35 aircrew will use F-35 program guidance.

2.24.5. Ensure unauthorized items such as food, bug spray, batteries, petroleum-based products, or other items that may cause contamination to equipment, are not in helmet bags or equipment lockers.

2.24.6. Ensure ACBRN has been fit and issued prior to deployment. D-1 ACBRN bags will not be palletized, or floor loaded unless placed in a durable nesting box or hard protective case to prevent damage.

2.24.7. Will maintain responsibility of all issued flight equipment (e.g., night vision devices (NVD), ACBRN, Helmet Mounted Display) and ensure items are returned to the AFE section upon completion of training, mission, alert tour, deployment or TDY.

2.24.8. Will hand-carry fragile personal flight equipment (e.g., helmet, NVDs, radio) unless packed in a hard protective case while traveling on any commercial flight.

2.24.9. Will perform preflight inspections on assigned or repositioned flight equipment as required by appropriate aircraft manuals, TOs, joint technical data, local policies, and HHQ's directives. Operational checks using in-shop equipment will be accomplished on personal flight equipment prior to flight (e.g., Oxygen equipment, communications devices and NVDs).

2.24.10. Ensure all issued flight equipment fits properly. Promptly notify AFE technicians of fluctuations in weight or any other circumstances that would affect fit of equipment. This is to validate equipment fits IAW TO.

2.24.11. Ensure flight equipment is sanitized when mission dictates.

2.24.12. Will not perform any modifications or use any unauthorized equipment without prior approval IAW this publication.

## 2.25. Egress Elements.

2.25.1. Responsible for the removal, installation, and tracking of integrated parachutes, survival kits and oxygen connectors (while aircraft installed) as listed in applicable Job Guides. **Exception:** AF Global Strike Command AFE will install B-52H aircraft flight equipment.

2.25.2. Egress technicians will locate inadvertent beacon activation on the flightline. Egress responsibilities are further defined in DAFI 21-101. **Note:** AFE technicians will locate inadvertent beacon activations within their shops/vehicles and on a flightline where Egress technicians are not assigned.

## 2.26. Optometry Clinic.

2.26.1. Provides optometry support for ACBRN eyepieces, interpupillary distance measurements, screening of users for Aircrew Laser Eye Protection, High Contrast Visors, and Night Vision Devices (NVD).

2.26.2. Perform annual eye exams on maintainers of NVDs and provide documented proof of the annual eye exam. Technicians must have 20/20 (correctable) vision to perform NVD maintenance IAW TO 12S10-2AVS9-2, *Intermediate with Illustrated Parts Breakdown, Image Intensifier Set, Night Vision, Type AN/AVS-9*. **Note:** 20/20 visual acuity may also be assessed by any authorized medical clinic (i.e., Family Medicine, Flight Medicine) but must be documented or referred to Optometry if visual correction is needed.

**2.27. Flight Medicine.**

2.27.1. Conducts annual visits to AFE sections to ensure compliance with TO 15X-1-1, *Maintenance Instructions, Oxygen Equipment* standards.

2.27.2. Provides units a listing of pilots/aircrew members approved to use High Contrast Visors IAW TO 14P3-4-151.

**2.28. Operational Medicine.** Provides standard ear impression technique for attenuating custom communication earpiece system and similar devices IAW AFMAN 48-149, *Flight and Operational Medicine Program (FOMP)*.

**2.29. Medical Logistics.**

2.29.1. Inspects and maintains first aid kits IAW TO 00-35A-39, *Instructions for Procurement, Issue, Use and maintenance of Medical Kits*.

2.29.2. Medical Logistics may be used as a POC for procuring first aid kits, isopropyl alcohol, gauze pads, and other medical supplies used for cleaning and maintaining flight equipment.

**2.30. Occupational and Environmental Health.** Conducts workplace surveillance and health monitoring programs IAW AFI 48-145, *Occupational and Environmental Health Program*.

**2.31. Avionics.** Routes all Helmet Mounted Cueing System related flight equipment issues and coordinates inspection of Helmet Mounted Cueing System helmets used for aircraft maintenance through the AFEO/AFE CEM/AFES/AFE COR for resolution.

**2.32. Flightline Maintenance Elements.**

2.32.1. Responsible for the removal and installation of escape slides, wing-well and over-wing life rafts, 25-man life rafts, and 46-man life rafts (to include the Age Limited Kits). **Exception:** AFE is responsible for removal and installation on KC-135 only. AFE will only remove and install for the periodic inspection of escape slides. Aircraft Electrical Environmental System Specialists (2A6X6), or qualified contractors, are responsible for servicing, inspecting, recharging, testing, and overhaul of inflation cylinders.

2.32.1.1. Aircraft maintenance crew chief will remove thermal protective devices, complete on-aircraft inspections, and reseal serviceable devices. Aircraft maintenance will deliver unserviceable curtains/barriers to AFE for in-shop inspection and repair, as required. Devices and shields remaining sealed are not re-inspected.

**2.33. Plans, Scheduling and Documentation.**

2.33.1. Supports maintenance forecasting and tracking of time change items with aircraft installed equipment.

2.33.2. Units must work independently with the local plans, scheduling and documentation offices to determine what items are tracked IAW DAFI 21-101 and TO 00-20-9.

**2.34. Air Force Safety Center.** Provides AFE experience data through the Directorate of Human Factors or Aviation Safety, upon request. Information and recommendations derived from USAF aircraft mishaps is collected, evaluated, stored, and distributed as required to AFE programs. AFSEC may also recommend adoption of specific programs, change(s) to publications, and/or procedures to correct flight equipment system deficiencies. All field-level requests for mishap related information will be processed through local safety channels to AFMC Safety (AFMC/SE)



who will request the information from AFSEC/SEF to ensure the release of requested information comply with the requirements of DAFI 91-204, *Safety Investigations and Reports*. This can be accomplished by telecom or e-mail.

**2.35. Wing Safety (or equivalent).** IAW AFI 91-202, *The United States Air Force Mishap Prevention Program*, manages and has available all mishap investigation kits/items.

**2.36. Aerospace Physiology.** Provides technical expertise as non-rated aircrew SMEs and physiological, safety & aircrew training support.

## Chapter 3

### AFE PROGRAM MANAGEMENT

**3.1. Purpose.** This chapter provides guidance to AFE technicians in administering key areas necessary for effective management of the AFE program.

**3.2. Budgeting.**

3.2.1. Each AFE section will prepare and submit an annual budget and/or financial plan to their unit CC. (e.g., Formal training courses listed in **Chapter 4**, workshops, TDYs, APWG/APEC, ETIMS/ETOOL deployment training, MAJCOM SAVs, TO Distribution Office Course, new equipment training, etc.).

3.2.2. The AFES/AFE COR should closely coordinate with their wing/group Resource Advisor and Financial Management offices to ensure AFE requirements are identified during various budget cycles.

3.2.3. AFE Sections will prepare and submit an annual ACBRN Forecast to the MAJCOM no later than 31 October each calendar year.

**3.3. Supply Accounts.**

3.3.1. AFE programs will establish their own supply account(s) for both home station and deployed operations IAW AFI 23-101, *Materiel Management Policy*, AFMAN 23-122, *Materiel Management Procedures*. (T-2)

3.3.2. Develop procedures to track supply, equipment, and non-uniform item expenditures to provide quantitative requirements to the unit CC and resource manager to assist in and justify budgeting and funding requirements. (T-3)

3.3.3. Based on configuration data, each equipment custodian will provide an equipment assessment of AFE requirements by detail number, noun, NSN, AP, number authorized, number on-hand, and Basis of Issue. Coordinate assessments with AFES/AFE COR through the SQ/CC responsible for the account. AFEO/AFE CEM/AFES/AFE COR will validate the assessment and direct adjustments, as required. This process will keep equipment authorizations to minimum (authorized) levels to meet mission requirements. (T-2)

3.3.4. Ensure applicable Force Activity Designators code is used when requisitioning flight equipment. When ordering time-change items, use TEX Code 8 to by-pass base level stock (if remaining service-life is inadequate to meet mission needs). Use advice code "2G" to ensure assets received from depot have the most service-life remaining on item. **Exception:** F-35 units will order items IAW program directives.

3.3.5. Ensure munitions account custodian submits their munitions forecast annually, using the Forecast and Allocation Module of the Agile Munitions Support Tool located at <https://www.my.af.mil/ammoprod/wm/> (T-2)

3.3.6. Units will review appropriate DPAS-FSM to ensure current authorizations for unit-specific mission requirements IAW AFI 23-101.

3.3.6.1. Excess equipment over DPAS-FSM authorizations will be corrected through approved authorizations increases or equipment turn-in processes. **Note:** Notify MAJCOM

of excess equipment prior to turn-in for re-distribution through the AFEO/AFE CEM/AFES. **(T-2)**

3.3.6.2. Use AP 016, 450, 538, aircraft configuration instructions, mission requirements, LOGDET, MAJCOM/FOA specific guidance and this instruction to determine the basis of equipment required.

3.3.7. AFE supply account representative(s) should monitor status of backorder requisitions and submit supply difficulty letters IAW AFMAN 23-122, Chap 5. Provide information copies of supply difficulty and mission impact statement submissions and any supply status updates or responses to the AFES and NCOIC AFE QA. Contract AFE functions will forward a copy to their local Quality Assurance office. Notify MAJCOM staffs if supply difficulties are not resolved and may result in mission impact. **(T-3) Note:** Supply difficulty and mission impact letters are not required for DPAS-Property Accountability (DPAS-PA) Module Custodian Inventory/Asset Report items.

3.3.8. Spare Equipment. Spare equipment is required for maintenance and turn-around time for AFE. Spare equipment, to include DPAS-PA items (i.e., Custodian Inventory/Asset Report items), and non-accountable (e.g., expendable items), are authorized as follows:

3.3.8.1. Spare Set Authorization. Equipment set quantity, per set, is determined by specific Air Force Manual 11-2 Mission Design Series (AFMAN 11-2 MDS) Volume 3, Addenda, or AFMAN 11-301V2. AFE may possess and maintain one spare set of equipment (e.g., survival vests, life rafts, etc.) per 10 aircraft possessed (total aircraft inventory), with a minimum of one spare set for units with less than 10 aircraft possessed. **(T-2)**

3.3.8.2. Units may adjust their total spare set quantity downward to best suit unit needs, or if other MAJCOM/FOA guidance exists (e.g., C-17A raft spare sets are determined by Air Force Mobility Command, Director of Operations, Aircrew Tactics & Training Division, Aircrew Flight Equipment (AMC/A3TL) and Special Purpose Recoverables Authorized Maintenance account authorizations). **Exception:** KC-46 units may adjust the spare set quantity upward for EROS masks to allow for contract servicing and repairs. **(T-2)**

3.3.8.2.1. If DPAS-PA reportable items are contained within the set, use the higher-level assembly to determine authorizations (e.g., radios installed in survival vests, life raft containers, etc.). **(T-2)**

3.3.8.2.2. Unless authorized by UTC, any DPAS-PA reportable items contained within spare sets will be considered readiness code B, non-mobility, under AP 450 authorization IDs 450AOOB (Combat Air Force) and 450EOOB (Mobility Air Force). **(T-2)**

3.3.8.3. Additional 10 Percent Spares Authorization. Some items may require an additional 10 percent spares authorization due to the nature of the equipment maintenance concept, depot level repair, or individual issued items (e.g., radio sets items, etc.). In cases where equipment is built in sets, the additional 10 percent authorization is in addition to the spare sets. Example: an unserviceable radio is removed from a survival vest and requires a spare radio as a replacement in order to keep the vest in service. The stand-alone 10 percent radio authorization in this example enables immediate replacement/serviceability. **(T-2)**

3.3.8.4. Additional 10 percent spares will not be applied (added on) to mobility equipment requirements. **(T-2)**

3.3.8.4.1. When authorized, the additional 10 percent authorization is calculated against the total Basis of Issue calculation. When figuring the additional 10 percent authorization for items contained in sets, add the basis of issue authorization, plus spare set authorization(s), and then calculate the 10 percent authorization. **(T-2)**

3.3.8.4.2. For DPAS-PA reportable items, the additional 10 percent authorization may only be cited if properly included and figured into the unit's DPAS-FSM authorization(s) (e.g., authorization IDs 450AOOB and 450EOOB) for the item needing the additional 10 percent. **(T-2)**

3.3.8.5. Mobility Equipment. Mobility equipment, DPAS-PA reportable and non-accountable, is authorized and calculated by specified UTC and NSN (or stock class) and quantity, as determined by UTC pilot and non-pilot units, with coordination of the responsible MAJCOM/FOA IAW DAFI 10-401. Additional 10 percent spares are not authorized for mobility equipment. **(T-2)**

3.3.8.5.1. DPAS-PA reportable items for mobility are considered readiness code A, Mobility, and must be on hand or on requisition. Units will cite the appropriate authorization platform and authorization ID (e.g., 450A\*\*\* (Combat Air Force), 450E\*\*\* (Mobility Air Force). **Note:** "\*\*\*\*" signifies the corresponding authorization ID with the UTC. For example, authorization ID 450ECLR corresponds with UTC 3YCLR. **(T-2)**

3.3.8.5.2. UTC pilot units will ensure DPAS-PA reportable NSN authorizations as stated in DPAS-FSM match the UTC LOGDET data. Since LOGDET data is by NSN, items like radios may or may not match the quantities of survival vests and rafts contained in the UTC LOGDET. **(T-2)**

3.3.8.5.3. If DPAS-PA reportable equipment authorizations as stated in DPAS-FSM are deemed incorrect when comparing the UTC LOGDET data, the UTC pilot unit will coordinate with the responsible MAJCOM/FOA to request update or correcting the authorization(s) in DPAS-FSM. **(T-2)**

3.3.9. Classic associate and active associate: The host AFE (i.e., the unit that owns the aircraft) will manage an account for all DPAS-PA reportable items. **(T-2)**

3.3.10. Due to the way large frame aircraft (LFA) deploy and or transition through areas of responsibility, aircraft installed flight equipment, to include DPAS-PA reportable equipment, will not be put into deployed or transferred status. **(T-2)**

### **3.4. Air Force Cost Analysis Improvement Group/Cost Per Flying Hour (AFCAIG/CPFH) Program.**

3.4.1. Aircraft and aircrew safety equipment, either on or off aircraft, to include prepositioned, used solely for flying operations are included as part of the CPFH program. To purchase these items, use element of expense/investment code 644 for Materiel Support Division items, code 605 for General Support Division items, and code 61952 for Government Purchase Card items. Units should use the most recent FY standardized CPFH RC/CC and PFMR/ORG codes applicable to their unit. Centrally managed and accountable support equipment items are not

funded through the CPFH program. **(T-0) Note:** Flight test squadrons (depot support) utilize Consolidated Sustainment Activity Group funding. **(T-2)**

3.4.2. AF/A3TH and A4 AFCAIG/CPFH managers will identify and define, (by decision-tree method), total APP AFCAIG/CPFH requirements for each MDS aircraft configuration. Items not passing the decision-tree method for AFCAIG/CPFH AFE funding will be considered non-fly items. Reference AFMAN 63-143, *Centralized Asset Management Procedures*, and DAFI 64-117 *Government Purchase Card Program* for AFE purchase applicability. **(T-1)**

### 3.5. Equipment Redistribution.

3.5.1. In the event AFE becomes excess to organizational needs, the AFES/AFE COR will notify their respective MAJCOM/FOA for possible redistribution prior to turn-in. **(T-2)**

3.5.2. Once excess has been identified and instructions have been provided to the unit (redistribution, turn-in, etc.), disposition will occur within 30 calendar days. **(T-3)**

### 3.6. Red-X Certification.

3.6.1. If Red X certification is required due to MDS or mission requirements, AFE technicians certified to clear “Red-X” discrepancies will be identified on an appointment letter or on a Special Certification Roster approved by OG/CC (or equivalent) or commander-approved local process. **(T-3)**

3.6.2. AFE “Red-X” certified technicians will be a 1P071 (or equivalent). The first O-6 in the chain of command may waive the 7-level requirement down to the minimum rank of senior airman (civilian or contractor equivalent) to clear “Red-X” discrepancies based on their experience and technical expertise; such a waiver will terminate once enough 7-levels (civilian/contractor equivalents) are available. **(T-2)**

3.6.3. AFES/AFE COR, with input from the NCOIC AFE QA, will develop a one-page checklist denoting the minimum areas to be evaluated for Red X certification. **(T-2) Note:** May coordinate with Maintenance QA or utilize their checklist if the minimum areas are included.

3.6.3.1. The minimum areas to be evaluated include: checking for currency of cockpit familiarization/egress training, completion of maintenance forms documentation training, completion of CTK inventories prior to departing the shop, vehicle preparation and configuration, removal of jewelry, review of aircraft forms, ensure aircraft is safe for maintenance, accomplishment of applicable equipment pre-installation inspection(s), use of safety devices, familiarity with job guide checklists, effective use of voice command and response/verification procedures, Foreign Object Damage checks, aircraft forms documentation, and accomplishment of CTK inventories after job completion. **(T-3)** For further guidance, reference DAFI 21-101 and MAJCOM Supplement to DAFI 21-101.

3.6.3.2. Based on MDS or mission requirements, the AFES/AFE COR and NCOIC AFE QA will train NCOICs/AFELT on the use of this checklist during NCOIC/AFELT initial training and qualification. NCOICs/AFELT will train technicians on checklist requirements. **(T-3)**

### 3.7. Composite Tool Kit Program.

3.7.1. The objective of the CTK program is to prevent and eliminate Foreign Object Damage to aircraft, engines, missiles, training and support equipment, and to reduce tool replacement cost through effective control of assets.

3.7.1.1. AFES will establish a CTK program IAW DAFI 21-101, *Aircraft and Equipment Maintenance Management*, Chapter 8, to include MAJCOM/FOA, and wing/unit policy directives. (T-2)

3.7.1.2. Ensure the CTK program includes specific lost tool procedures (i.e., who to contact when a tool is lost, and what actions to take), in order to control and account for tools used in each AFE section.

3.7.2. AFE sections are authorized to manually track their CTKs and are not required to use TCMax or other maintenance automated systems for accountability and control of tools and equipment.

3.7.3. AFES, through CTK custodians, is responsible for tool and equipment accountability and control (i.e., knowing where all tools are and who has responsibility for them).

3.7.4. NCOICs will ensure when technicians sign out a CTK, individual tool, or piece of equipment, they are effectively responsible and accountable for the item/s until it is returned to its proper location and signed back in, at which point accountability transfers back to the CTK custodian.

3.7.5. AFE functions performing any aircraft/flightline maintenance with tools (to include red-ball maintenance), will develop a dispatchable flightline CTK IAW DAFI 21-101. (T-2)

3.7.6. Premeditated parachute programs utilizing personal rigger CTKs will develop local procedures to track all CTKs. (T-2)

3.7.7. Units will develop local procedures to track all oxygen connectors dispatched to and from the flightline. **Note:** Egress personnel are responsible for documenting location of connector local IDs installed on ejection seat aircraft. (T-2)

### 3.8. Technical Orders (TO), Publications, Operating Instructions (OI) and Product Quality Deficiency Reports.

3.8.1. AFE sections will maintain only electronic TOs unless the required TOs are not managed electronically for items serviced by the unit.

3.8.2. TOs will be filed and maintained IAW TO 00-5-1, *AF Technical Order System*, TO 00-5-3 *AF Technical Order Life Cycle Management* and/or managed through ETOOL IAW 31S5-4-ETOOL-1, *ETOOL and Commercial Mobile Device Setup and Management*. **Exception:** Paper TOs must be used where required by the Transient Electromagnetic Pulse Emanation Surveillance Technology (TEMPEST) program. (T-2)

3.8.2.1. Refer to TO 00-5-1 for use of manufacturer's manuals in support of approved COTS/NDI equipment.

3.8.2.2. Duties that require the printing of TOs (includes portions of TOs) and locally prepared checklists and/or guides developed from TOs must comply with TO 00-5-1. (T-2)

3.8.2.3. AFES/AFEFC/AFE QA will ensure that all procedural TO changes that affect the way equipment is inspected or made serviceable are physically demonstrated to all assigned qualified technicians. This responsibility does not apply to changes that are administrative only (e.g., update to records or equipment fundamentals). (T-2)

3.8.2.4. Once Recommended Changes (RCs) are submitted to the MAJCOM AFE command control point (CCP), evaluate and route RC reports as follows:

3.8.2.4.1. If the originating MAJCOM CCP disapproves the RC, the CCP will provide a complete rationale and return the report to the originator using MAJCOM routing procedures. If the originating MAJCOM CCP approves the RC, the CCP will send the report to other using MAJCOM CCPs for coordination.

3.8.2.4.2. The originating MAJCOM will notify all other MAJCOM CCPs via electronic means (e-mail, MS Teams, etc.). MAJCOM CCPs will have 10 calendar days to respond. Non-response within that period constitutes concurrence.

3.8.2.4.3. The originating MAJCOM CCP will then consolidate all MAJCOM CCP coordination inputs and modify the RC, as needed, to meet change input intent. If consensus is not met, the LC will adjudicate points of contention or seek resolution with the AFECFM.

3.8.2.4.4. If the RC is disapproved by the group, the originating MAJCOM CCP will provide rationale and return the report to the originator IAW ETIMS routing procedures. If approved, the originating MAJCOM CCP will forward and route the RC IAW ETIMS routing procedures.

3.8.2.4.5. The originating MAJCOM CCP will consolidate all MAJCOM CCP coordination inputs and modify the improvement report as needed.

3.8.2.4.6. When conducting MAJCOM CCP coordination actions, the LC will provide both using command and LC coordination and fill out the reviewer block of the improvement report. LC for each type of equipment is defined in AFMAN 11-301V2.

3.8.2.4.7. The originating MAJCOM CCP will consolidate all MAJCOM CCP coordination inputs and modify the improvement report as needed. The LC will adjudicate on contentious issues or consult with the AFECFM for resolution.

3.8.2.4.8. If improvement report is disapproved, the originating MAJCOM CCP will provide rationale and return the report to the originator IAW MAJCOM routing procedures. If approved, the originating MAJCOM CCP will forward and route the improvement report to the appropriate AFMC TO authority IAW originating MAJCOM routing procedures.

3.8.2.4.9. On behalf of the 1P0 career field, AFLCMC/WNUS will compile and maintain the current AFE CCP POC list posted on the HQ USAF AFE SharePoint®.

3.8.3. Policy, procedures, and responsibilities for product quality deficiency report (PQDR) submission and exhibit handling and processing are outlined in TO 00-35D-54.

3.8.4. Units will comply with DAFMAN 90-161 when developing unit OIs or local directives. Unit OIs will be annually reviewed by the AFEO/AFE CEM/AFES and forwarded to the applicable CC for final approval. (T-2)

3.8.4.1. The squadron commander will sign OIs affecting only squadron shop operations. OIs providing direction to aircrews/AFE operations from multiple supported units will be signed by the OG/CC or equivalent. **(T-3)**

3.8.4.2. Support agreements for interaction and procedures involving organizations outside of AFE functions (maintenance, medical, safety, operations, etc.) will be defined locally and must be reviewed annually. **Note:** Informational copies of support agreements will be forwarded to MAJCOM HQ for awareness. **(T-2)**

### **3.9. AFE Facilities.**

3.9.1. Facilities will be maintained IAW applicable AF Occupational, Safety, and Health standards, TO 15X-1-1 *Maintenance Instructions; Oxygen Equipment*, 12S10-2AVS9-2, *Intermediate with IPB, Image Intensifier Set, Night Vision, Type AN/AVS-9*, and 14D3-11-1, *Operation, Inspection, Maintenance, and Packing Instructions for Emergency Personnel Recovery Parachute (Chest, Back, Seat Style, and Torso Harness)* standards. The sensitivity of flight equipment requires environmental and climatic controls. Refer to DAFMAN 32-1084, 14S and 14D series TOs for guidance on spatial and environmental requirements. ANG units utilize ANGH 32-1084 in lieu of DAFMAN 32-1084. AFRC units will also consult AFRCH 32-1001 **(T-1)**

3.9.2. Store items neatly and separately to prevent co-mingling of serviceable, repairable, and unserviceable items. Provisions will be made to protect shelf stock components from dust, impurities, and direct sunlight. Maintain equipment in original packaging or plastic bags when able. **(T-2)**

3.9.2.1. All equipment/shop stock items/supplies will be considered serviceable unless otherwise marked with repairable and unserviceable condition tags. **(T-3)**

3.9.2.2. Repairable and unserviceable items will be properly tagged and stored neatly and separately to prevent comingling and accidental use. **(T-2)**

3.9.3. Ensure sufficient work and storage areas are available for equipment inspections and storage. When necessary, pad and cover work benches and storage bins with material to provide smooth surfaces and edges. **(T-2)**

### **3.10. Resource Protection/Storage.**

3.10.1. Installation commanders designate controlled areas and storage facilities IAW DAFI 31-101, *Integrated Defense (ID)*. AFE will assist with the commander's resource protection program, if applicable.

3.10.2. AFE maintains and stores mission essential equipment that, by their nature, is valuable and desirable. AFEO/AFE CEM/AFES will ensure AFE sections are designated as limited access areas to prevent unauthorized entry, and to safeguard flight equipment. AFEO/AFE CEM/AFES will use discretion when allowing visitors to gather in AFE sections, and ensure visitors are always escorted. **(T-3)**

3.10.3. Maintain munitions storage facilities within AFE sections IAW this chapter, DoDM 5100.76, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*, DAFI 31-101 and DESR 6055.09\_AFMAN 91-201, *Explosives Safety Standards*.

3.10.4. AFE sections storing firearms will ensure facilities are maintained IAW DAFI 31-101.



### 3.11. Safety.

3.11.1. Administer Mishap Prevention and Risk Management programs tailored to the needs of AFE technicians. Refer to AFI 91-202 *The USAF Mishap Prevention Program* and AFI 90-802 *Risk Management*.

3.11.2. Contact local wing or group safety staff, bioenvironmental engineering services, and Fire Department to ensure section hazards are identified and corrective actions are addressed.

3.11.3. Maintain an AF 55, *Employee Safety and Health Record or equivalent* for all assigned technicians IAW AFI 91-202 and local wing safety standards.

3.11.4. Units will establish and develop an explosive and munitions storage safety program. **(T-2)** For further guidance, reference DESR 6055.09\_AFMAN 91-201, AFI 91-202, and local wing safety requirements.

3.11.5. AFE sections will not store non-flight equipment munitions items. Non-flight equipment munitions are those items not inspected and not physically placed into and removed from service by AFE technicians. **(T-2)**

3.11.6. AFE technicians will follow universal precautions, including the use of impermeable gloves when contact with body fluids (e.g., saliva) is likely, IAW DAFMAN 91-203 *Air Force Occupational Safety, Fire and Health Standards*, AFI 91-202, and AFI 48-101, *Aerospace Medical Enterprise*. **(T-1)**

3.11.6.1. AFE technicians will wear impermeable gloves as specified by Bioenvironmental Engineering Flight when performing oxygen mask post flight and periodic inspections. This requirement applies to in shop and on aircraft inspections. **(T-2)**

3.11.6.2. A replacement supply of gloves must be included in the flightline CTK or consumables kit, as required. **(T-3)**

### 3.12. Hazardous Communications (HAZCOM) Program.

3.12.1. Each AFE section will ensure hazards in the work environment are identified to Military Public Health for resolution. **(T-2)**

3.12.2. Document the training provided, and abatement equipment for everyone exposed to shop hazards on the individual's AF Form 55, *Employee Safety and Health Record*, or equivalent. **(T-3)**

3.12.3. Units will coordinate with the responsible agencies to perform an annual review of Safety Data Sheets (SDS) for currency and document appropriately. **(T-3)**

### 3.13. Aircrew Small Arms Program.

3.13.1. AFE sections that store/issue Small Arms/Light Weapons (SA/LW) in support of aircrew operations will comply with the following (T-1): **Note:** Air Force Special Operations Command and Air Mobility Command units will not store/issue/maintain SA/LW. **(T-2)**

3.13.2. If maintained, AFE SA/LW support will be limited to the following equipment: **(T-1)**

3.13.3. Aircrew Self-Defense Weapon (ASDW): The ASDW is a modified carbine/rifle installed in TO-approved aircraft survival kits.

3.13.4. M9/M18 Handgun: Individually issued to aircrew prior to flight and installed in TO-approved aircrew survival vests.

3.13.5. SA/LW used by aircrew (regardless of purpose, e.g., anti-hijacking/self-defense etc.) are managed IAW AFMAN 23-122, Materiel Management Procedures. (T-1)

3.13.6. AFE sections storing firearms will ensure facilities are maintained IAW DAFI 31-101, Integrated Defense. (T-1)

3.13.7. Commanders will develop a plan that ensures the continuous monitoring of AFE personnel's suitability to handle weapons IAW AFI 31-117, *Arming and Use of Force by Air Force Personnel*. (T-1)

3.13.8. AFE personnel performing armory or clearing barrel attendant duties will follow the requirements outlined in AFMAN 31-129, *USAF Small Arms and Light Weapons Handling Procedures*. (T-1)

### **3.14. Outstanding AFE Awards Program.**

3.14.1. The purpose of the Outstanding AFE Awards program is to acknowledge AF military and civilian individuals and units for outstanding performance in duty, exceptional contributions to AFE operations and management, and enhancements to AFE readiness. It establishes the criteria and procedures for submitting nominations for the following categories and applies to all AF AFE (1P0X1) technicians.

3.14.2. The following categories are included as part of the Outstanding AFE Awards program:

3.14.2.1. SMSgt Michael Mumford Outstanding USAF AFE Headquarters Staff Member of the Year.

3.14.2.2. Outstanding USAF Instructor of the Year.

3.14.2.3. Outstanding USAF AFEO of the Year.

3.14.2.4. Outstanding USAF AFE SNCO of the Year.

3.14.2.5. Outstanding USAF AFE NCO of the Year.

3.14.2.6. Outstanding USAF AFE Airman of the Year.

3.14.2.7. Outstanding USAF AFE Civilian of the Year Award (Category I).

3.14.2.8. Outstanding USAF AFE Civilian of the Year Award (Category II).

3.14.2.9. Outstanding USAF AFE Large Program of the Year.

3.14.2.10. Outstanding USAF AFE Small Program of the Year.

3.14.2.11. Outstanding USAF ARC AFE SNCO of the Year.

3.14.2.12. Outstanding USAF ARC AFE NCO of the Year.

3.14.2.13. Outstanding USAF ARC AFE Airman of the Year.

3.14.3. The Outstanding AFE Awards program is administered by AF/A3TH, and AF/A3T approves and announces the final selection of award winners.

3.14.4. Units submit nominations to respective MAJCOMs/FOA as outlined in DAFMAN 36-2806, wing/MAJCOM routing processes and the annual career field awards message NLT the suspense dates set by each MAJCOM/FOA.

3.14.5. Once RegAF MAJCOM and ARC winners have been selected, nominees for the HAF level awards will be submitted to AF/A3TH as stated in the annual career field awards message.

### **3.15. Defense Property Accountability System.**

3.15.1. DPAS is a DoD property management system. It is the Accountable Property System of Record (APSR) for AFE.

3.15.2. Unit AFE leadership will monitor applicable Site ID/Warehouse/Accountable UICs to properly monitor assets and authorizations.

#### **3.15.3. Aircrew Flight Equipment Records Management System (AFERMS).**

3.15.3.1. AFERMS is a data management program within the Warehouse Management module of DPAS.

3.15.3.2. AFERMS will be used by AFE functions to track all assigned aircrew (includes personal sizing information), flight equipment, Quality Assurance and quality control inspections. **Exceptions:** As a joint program requirement, the F-35 uses the Autonomic Logistics Information System to track F-35 related AFE. F-35 AFE/units will use Autonomic Logistics Information System until directed otherwise. MAJCOMs will determine alternative tracking methods for units without permanent Non-classified Internet Protocol Router Network access (exception does not apply for temporary purposes such as deployment or TDY). **(T-1)**

3.15.3.3. TFIA units will maintain separate AFERMS warehouses for ARC and REGAF equipment/personnel. **(T-3)**

3.15.3.4. Units tracking equipment with the AFERMS program are not required to duplicate that data (e.g., status boards, shop inspection cards, or printed forms). **(T-3)**

3.15.3.5. The AFES will standardize equipment tracking methods (e.g., local control number, etc.) within their respective groups. **(T-3)**

3.15.3.6. Units reporting system errors or requesting changes to AFERMS will submit an error/Systems Change Request form through the NCOIC, AFE QA to their MAJCOM POC, who will process the request through the AFERMS routing and approval process.

3.15.3.6.1. The AFERMS routing and approval process is located on a living document and posted on the USAF AFE SharePoint®.

3.15.3.6.2. AF/A3TH will review all approved MAJCOM Special Certification Rosters and, with MAJCOM input, determine execution priority. **(T-1)**

**3.16. Integrated Maintenance Data System (IMDS)/G081.** If deemed necessary by the local maintenance group commander (MXG/CC) and OG/CC or equivalent, AFE personnel will sign off required tasks in G081 and aircraft forms IAW TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policy and Procedures*. AFE personnel are not required to have G081 access otherwise. **(T-3)**

**3.17. Post Misfortunate Happenstance (MISHAP) procedures.**

3.17.1. Flight equipment used in any aircraft ejection will not be reused. **(T-1)**

3.17.2. Flight equipment subjected to a Class A incident not involving an ejection will be immediately segregated. Equipment may be reused after all investigations have been completed, released by the Safety Investigation Board and/or the Accident Investigation Board president and a thorough inspection IAW TOs to verify serviceability. **(T-1)**

**3.18. Physiological Events.**

3.18.1. Physiological incidents and reporting procedures are governed under DAFMAN 91-223, *Aviation Safety Investigations and Reports*.

3.18.2. AFE technicians will use the AFE Physiological Incident Response Checklist, located on the HQ USAF AFE SharePoint®. Attach all affected flight equipment database records (e.g., AFERMS/Autonomic Logistics Information System) to the checklist and submit them to the investigating officer, flight surgeon, or aerospace physiologist. Investigating officers, Flight Surgeons or Aerospace Physiologist should notify AFLCMC/WNU program managers and Lead Aerospace Engineer at the Life Science Equipment Laboratory (Comm: 937-656-0169) to determine if packaging or sending the evidence to the lab is required or necessary **(T-1)**

3.18.2.1. Units will notify the owning MAJCOM AFE staff of the incident and provide a current update/status. **(T-2)**

3.18.2.2. Units will maintain a copy of completed incident response checklists for 12 months. **(T-2)**

## Chapter 4

### TECHNICIAN TRAINING

#### 4.1. Purpose.

4.1.1. The purpose of this chapter is to provide guidance for managing the AFE technician training program (AFETT). The AFETT program must ensure AFE technicians (military and civilian), are properly trained to become task qualified on assigned tasks determined by the AFES and CFETP 1P0X1.

4.1.2. The AFETT program is the cornerstone of the 1P0XX career field. The establishment of an effective AFETT program is critical to the maintenance and sustainability of flight equipment, the safety, health, and performance of aircrew, and the development of AFE technical subject matter experts.

4.1.3. AFETT is an instructional process for upgrade, qualification, or continuation training. AFETT will be conducted IAW DAFI 36-2670 *Total Force Development*, CFETP 1P0X1, and **Table 4.1.** of this instruction. **(T-1)**

4.1.4. Upon task qualification, technicians will continue to develop task proficiency through on-the-job training (OJT), targeted education opportunities, and formal training. Supervisors will assess an Airman's subject matter expertise through performance evaluations and various other assessment methods. Proficiency will be gauged through use of the Quality Assurance/Control programs.

4.1.5. In the AFE training model, technicians are 100% qualified on all CFETP 1P0X1 requirements for one MDS at current assignment. **(T-1)** The AFES must ensure that the combined qualifications of assigned AFE personnel provides a 100% task coverage of all AFE mission requirements, and that an adequate number of qualified technicians are available to provide this 100% coverage during manpower demands (deployments, leave, medical restrictions, shift work etc.).

4.1.6. RegAF and full-time AFRC/ANG personnel in active and classic association organizations will follow the host unit MTP. **(T-1)** Traditional ARC personnel will follow ARC MAJCOM/FOA MTP and policy. **(T-2)**

4.1.7. Documentation of training is paramount to a successful training program. The automated program used for the management and documentation of individual AFETT records is myTraining. **(T-1)**

4.1.8. ALC AFE related technicians will track appropriate training and task qualification using Part II of CFETP 1P0X1 or civilian Training Scheduling System (TSS-PAC) program parts II and III. **(T-2)**

#### 4.2. Training Responsibilities.

4.2.1. **AFE Superintendent (AFES).** Use the following guidance as a baseline tool to develop and manage the local AFETT program.

4.2.2. If the AFES is a Traditional Reservist, some responsibility may be delegated to a full time 1P0X1 civil service technician/AGR NCOIC. **(T-3)**

4.2.2.1. Ensure the training program is managed IAW DAFI 36-2670.

4.2.2.2. Follow local procedures for documenting training. Contact UTM for specific wing, group, and squadron guidance. **(T-3)**

4.2.2.3. Develop an MTP IAW DAFI 36-2670 using CFETP 1P0X1 and, with assistance from the UTM and AFELT, ensure 100% task coverage. **(T-1)** Include unique work center tasks via a Workcenter Job Qualification Standard (WJQS), as required.

4.2.2.4. During upgrade training, a member will be rotated through applicable sections and complete all MTP/MTL requirements. **(T-2)**

4.2.2.4.1. Once fully qualified, the AFES will develop a technician plan (personnel rotation, periodic requalification, etc.) to ensure task proficiency and to meet workcenter coverage needs to support the mission. **(T-2)**

4.2.2.4.2. Task evaluations are required for personnel prior to inspecting equipment that require IPI if they have not completed a full inspection of the equipment within 6 months. Deploying personnel will re-accomplish their 6-month currency within 60 days of deployment and will be considered current throughout the duration of the deployment. Track currencies utilizing electronic training records. **(T-1)** **Note:** Except premeditated parachutes, MAJCOMs/ANG may extend the 6-month currency to 12 months for experienced technicians. MAJCOMs/ANG must clearly define experience requirements by equipment type in supplements to this publication.

4.2.2.5. 1P051/1P071 personnel in duty qualification training will be entered into training status code "Q" in their electronic training records. The AFES will ensure a plan is developed to complete all training requirements. Upon qualification of all requirements, the member's training status code will be changed to "R". **(T-1)**

4.2.2.6. Develop a standardized program to track formal training to include career development course participation. Contact UTM for specific guidance. **(T-3)**

4.2.2.7. Ensure RegAF and AFRC SNCOs (to include CMSgts) at the wing-level or below, who perform equipment inspection duties (includes IPIs, QCIs, PEs, and TEs), or train/certify others will maintain OJT records. **(T-2)**

#### 4.2.3. **AFE Flight Chief (AFEFC)/NCOICs (or civil service and contractor equivalent).**

4.2.3.1. Follow guidance IAW DAFI 36-2670, CFETP 1P0X1, and policy defined by the UTM, AFES and wing, to effectively execute the AFETT program and manage unit MTPs. **(T-2)**

4.2.3.2. Ensure AFE technicians requiring training are trained and evaluated by a qualified trainer/certifier IAW this instruction. **(T-2)**

4.2.3.3. Ensure technicians scheduled to attend formal training courses have completed all prerequisites before attendance. **(T-2)**

#### 4.2.4. **AFE Lead Trainer (AFELT).**

4.2.4.1. As a highly skilled and competent 1P0X1 NCO or SNCO, the AFELT serves as the primary technician training program manager and lead trainer, operating the program IAW DAFI 36-2670 and AFMAN 11-301 Volumes 1-4. Must be a minimum grade of staff

sergeant (SSgt), hold AFSC 1P071, have been appointed by the AFES, and have at least 3 years of experience in AFE (1 of the 3 years must be working in an AFE facility at the 1P071 level). Must be 100% qualified on work center MTP/MTL tasks or be augmented by an individual who is qualified on required tasks to ensure full coverage training. **(T-3)**

4.2.4.2. Ensures MTP/MTL provides 100% coverage of mission requirements. **(T-1)**

4.2.4.3. Oversees the training evaluation process, evaluates assigned members, and identifies required training IAW the MTP and MTL. **(T-2)**

4.2.4.4. Plans, schedules, and conducts upgrade and duty qualification training on assigned technicians to include task evaluations. **(T-3)**

4.2.4.5. Ensures established training milestones for each trainee are maintained and all deviations are documented in the member's training record. Reports delays/deviations in established training timelines to the AFES/AFEFC for corrective action. **(T-2)**

4.2.4.6. Manages and oversees the flight's on-the-job training records program ensuring proper documentation of training, capturing progress, or identifying obstacles/delays in training. **(T-2)**

4.2.4.7. Evaluates members and submits recommendation to the AFES for awarding of 077, 078, and 079 special experience identifiers (SEI), skill level upgrade, and in-process-inspection certification. **(T-2)**

4.2.4.8. Forecasts and maintains all required resources for the training program (training equipment etc.). **(T-3)**

4.2.4.9. Identifies, requests, and prepares assigned personnel for formal training course attendance. **(T-3)**

4.2.4.10. Directs, monitors, and ensures the successful execution of training Career Development Course completion in cooperation with supervisors. **(T-2)**

4.2.4.11. Interprets and resolves training related matters or trends discovered during quality control/Quality Assurance operations. **(T-3)**

4.2.4.12. As directed by the AFES/AFEFC, serves as the flight's action officer for all Air Force training program requirements involving the unit commander and unit/base training manager. **(T-3)**

4.2.4.13. Establishes a recurring training program on items with an 18-month or more inspection cycle to ensure proficiency levels are maintained. **(T-2)**

4.2.4.14. Ensures all AFE technician training is performed using the applicable TOs/COTS manuals, AFI/AFMAN guidance, and MAJCOM directives in conjunction with all associated support equipment and tools. **(T-2)**

#### **4.2.5. AFE Task Trainer/Certifier.**

4.2.5.1. The AFE task trainer/certifier is a highly qualified and experienced AFE technician for those tasks that they are training/certifying. AFE certifiers are at least a SSgt with a 7-skill level equivalent. Based on manpower or 7-level shortages, highly experienced and qualified SSgt 1P051s may be appointed to perform certifier duties when

approved by the unit commander. The UTM and AFES/AFE COR will ensure task trainer/certifier meets all other requirements outlined in DAFI 36-2670. **(T-1)**

4.2.5.2. Evaluate newly assigned technicians to validate qualification in previously trained areas prior to them performing unsupervised work IAW DAFI 36-2670. Includes military, civilian, and contractor equivalent. **Note:** Trainer/certifier must consider MDS specific equipment configurations when evaluating previous qualifications. Newly assigned members will perform all previously qualified equipment tasks and the results will be documented in electronic training records. **(T-2)**

4.2.5.3. TEs conducted during upgrade, qualification or re-qualification training will include observation of task performance. Technicians that exceed AQLs or “Go”/3c standards during evaluation must be re-trained on the entire task/equipment type prior to re-evaluation. Question and answer sessions alone do not qualify as task evaluations. Document training status in electronic training records. **(T-2)**

4.2.5.4. Ensures individual training record is accurately maintained to reflect member’s qualifications and training status **(T-2)**

#### 4.2.6. AFE Trainee.

4.2.6.1. Actively prepares and participates in the AFETT program.

4.2.6.2. Understands and is aware of all individual training requirements.

4.2.6.3. Takes all personal actions to ensure established training milestones are maintained.

4.2.6.4. Actively dedicates time and energy to successfully completing training tasks, Career Development Course (or equivalent) and/or any formal training course.

4.2.6.5. Notifies AFE leadership of any obstacle impacting personal performance or training progression.

4.2.6.6. Ensures their training record is accurately maintained to reflect qualifications and training status.

#### 4.2.7. Third-Party Certification

4.2.7.1. Third-party certification is one of the best methods for validating effective training programs. It is defined as an evaluation of completed training conducted by a task certifier. Trainers and task certifiers are not the same person.

4.2.7.2. Third-party certification is required for all parachute systems maintained by AFE (i.e., personnel, cargo, drogue, drag). **(T-2)**

**Table 4.1. AFETT REQUIREMENTS. (T-2)**

| Course Title      | Course ID          | Note | 1P031 | 1P051 | 1P071 | AFE<br>CEM/<br>AFES | AFECTI | T1P0X1 | AFE0 |
|-------------------|--------------------|------|-------|-------|-------|---------------------|--------|--------|------|
| AFE<br>Apprentice | J3ABR1P031<br>048C | -    | M     | -     | -     | -                   | -      | -      | -    |



|  |                    |      |   |   |   |   |   |   |   |
|--|--------------------|------|---|---|---|---|---|---|---|
| Ira C. Eaker<br>Center<br>Academic<br>Instructor<br>Course     | MCPD001            | 1    | - | D | D | M | M | M | - |
| ACCA Course  | 3J5ACC1P0X1<br>005 | 4    | - | D | D | D | M | D | - |
| AFE Program<br>Manager's<br>Course 101                         | 3J5ACC1P0X1<br>006 | 5, 7 | - | D | M | - | D | D | - |
| AFE Program<br>Manager's<br>Course 201                         | 3J5ACC1P0X1<br>007 | 5    | - | - | D | M | - | D | D |
| AFE CSEL<br>Course   | 3J5ACC1P0X1<br>001 | 5    | - | D | D | D | D | D | - |
| USAF Life-<br>Sciences<br>Equipment<br>Investigation<br>Course | 3J5ACC1P0X1<br>004 | 6    | - | D | D | M | D | D | - |
| Contingency<br>Wartime<br>Planning<br>Course                   | MCADRE002          | 2    | - | - | D | D | - | - | - |
| Initial<br>Physiological<br>Hypoxia                            | S-O-B/A-APH-I      | -    | D | D | D | D | D | D | M |
| Refresher<br>Physiological<br>Hypoxia                          | S-O-B/A-APH-R      | -    | D | D | D | D | D | D | M |
| U.S. Army<br>Basic<br>Airborne                                 | L5AZA1XXXX<br>0A1A | -    | D | D | D | D | D | D | D |
| Parachute<br>Rigger Course<br>(Phase 2 and<br>Phase 3)         | L9AZA1P051<br>00AA | 3    | M | M | M | M | - | - | - |
| Parachute<br>Rigger Course<br>(Phase 1)                        | L9AZA2T251<br>00AA | 3    | M | M | M | M | - | - | - |

|  |                    |   |   |   |   |   |   |   |   |
|--|--------------------|---|---|---|---|---|---|---|---|
| Military Freefall (MFF) Parachutist Course | L5AZA1XXXX<br>0F1A |   | D | D | D | D | - | - | - |
| Cobham Parachutist Oxygen Training         | Commercial Course  | 3 | M | M | M | M | - | - | - |

**LEGEND: M = Mandatory, D = Desirable**

**Notes:**

1. The following courses are suitable substitutes:

- Principles of Instruction (J3AIP3S2X1 EF3A, J7AZTTXXXX 0P1A)
- ANG Instructor Certification Program (ANGC ICP)
- ACC Classroom Instructor Course (3J5ACC3S200 000)
- Basic Instructor Course (All 0B2B versions)
- Courses Y120006 and Y120022

- Any other CCAF accredited Methods/Principles of Instruction type course may be used to satisfy the AFECTI requirement, with approval from the member's owning MAJCOM/FOA. **Exception:** Not required for AFEOs and instructor aircrew.

Sub Note 1: ARC AFES who feel they have an equivalent teaching standard, may submit for a permanent waiver to their applicable ARC AFE staff.

Sub Note 2: ANG AFE personnel who were trained, qualified, and certified as an AFECTI prior to 06 Sep 1996 are permanently waived from the training requirement.

2. Mandatory for IP0s on MAJCOM staff and AFE CEM or AFES performing pilot unit duties.

3. Only mandatory for AFE Riggers supporting premeditated/cargo parachute operations. See ETCA listed requirements.

4. This is a "train the trainer" designed course. Priority students will be Lead AFECTIs. Requirement is for one certified instructor per unit. **Exception:** Attendance not applicable to units that do not have an ACBRN commitment.

5. Mandatory when listed in deployment line remarks.

6. Mandatory for technical sergeant (TSgt) and above filling the NCOIC, AFE QA position. ANG may ensure at least 1 member per unit per MDS supported is trained and qualified in lieu of the NCOIC, AFE QA position.

7. ANG Only: Mandatory only for TSgt and above filling the NCOIC, AFE QA position.

**Note:** Table 4.1 lists all AF AFE mandatory and desirable training. Requirements are identified for military and civilian/contractor equivalents.

## Chapter 5

### AFE CONTINUATION TRAINING (AFECT)

#### 5.1. Purpose.

5.1.1. AFECT consists of ground training events (not ancillary training) listed in **Table 5.1** of this instruction and is provided for each aircrew member, designated non-rated personnel, and ejection seat passengers to refresh and enhance their proficiency and knowledge in all AFECT events.

5.1.2. This chapter establishes specific requirements and applies to all AFECTI, aircrew and personnel who fly.

#### 5.2. AFECT Responsibilities.

5.2.1. AFECT will be conducted IAW **Table 5.1** of this instruction. MAJCOMs/FOA may supplement this instruction to tailor AFECT courses to fulfill their specific requirements. With Lead MAJCOM input, AF/A3TH will annually review and update their AFE Air Force Master Lesson Plan (AFMLP) based on current safety information provided by the AFSC. **(T-1)**

5.2.2. LL coded events will be taught by an AFEO, qualified instructor aircrew, or 1P0X1 AFECTI (see section 5.3 for further definition). MAJCOMs/FOA and ARC units may supplement this instruction with additional requirements for assigning and certifying AFECTIs. **(T-1)**

#### 5.3. Formal Training Requirements.

5.3.1. LL01 will be provided using the AF/A3TH approved AFE LL01 training guide and applicable local information. Technicians providing LL01 must be familiar with local AFE operations, aircraft and equipment configurations and qualified in electronic training records on the fundamentals of all equipment discussed in LL01. Technicians performing LL01 are not required to be AFECTI certified IAW **para. 5.4**. **(T-1)**

5.3.2. LL07/08 will be performed by technicians who are CFETP 1P0X1 task certified in their electronic training records for the event, and all applicable equipment tasks involved in completing a detailed fit check (e.g., fundamentals, donning, fit, inspection, operational checkout etc.). Technicians performing LL07/08 are not required to be AFECTI certified IAW **para. 5.4**. **(T-1)**

5.3.3. LL04/LL06: Will only be instructed by qualified 1P0X1 AFECTIs IAW section 5.4. of this instruction. **(T-1) Exception:** Contracted/program office flying operations with LL06 requirements, under the administrative oversight of AFMC, that do not have AFE equivalent personnel are allowed to instruct LL06 with the approval of Air Force Materiel Command, Director of Air, Space, and Cyberspace, Flight Operations & Standardization and Evaluation Division (AFMC/A3V). The AFMC AFE FM will evaluate, certify, and approve in writing all personnel instructing LL06. Instructors will be qualified instructor aircrew members and utilize training materials approved by AF/A3TH and/or AFMC/A3V.

5.3.4. LL02/LL03/LL05: Will only be instructed by an AFEO or a qualified instructor aircrew, who have been appointed by the squadron commander and certified in writing by the AFEO. **Exception:** Civil service personnel, technicians or contractor equivalent may conduct AFECT

courses if specifically hired for that purpose. **Note:** ANG AFE T32/T5 technicians do not fall under this exception and are not authorized to instruct LL02/LL03/LL05. **(T-1)**

#### 5.4. AFECTI Qualifications.

5.4.1. The term AFECTI only applies to qualified 1P0X1 AFE technicians. MAJCOMs/FOA and ANG units may supplement this instruction outlining additional AFECTIs certification requirements. **(T-1)**

5.4.2. AFECTIs will be trained by the Lead AFECTI and certified by the AFE CEM/AFES/AFE COR for LL04 and LL06 and require re-certification at each new assignment. **Note:** AFECTI certification may be delegated to the Lead AFECTI. **(T-2)**

5.4.2.1. The Lead AFECTI will be initially certified by the AFE CEM/AFES/AFE COR. **(T-1)**

5.4.2.2. The AFE CEM/AFES/AFE COR will be CFETP 1P0X1 qualified on LL-series taught equipment fundamentals and **Table 4.1** instructor course requirements prior to conducting evaluations. **(T-2)**

5.4.3. AFECTI certification will include:

5.4.3.1. Attendance of mandatory courses **IAW Table 4.1**. **(T-2)**

5.4.3.2. An initial “start-to-finish” evaluation conducted by the Lead AFECTI and documented on an AETC Form 281, *Instructor Evaluation*, AETC Form 620, *Academic Instructor Monitoring Checklist*, or MAJCOM equivalent. Forms will be retained while the member is instructing LL events. **(T-2)**

5.4.3.3. Members will be qualified on equipment fundamentals for each LL event. **(T-2)**

5.4.3.4. Members must teach at least once within a 12-month period to maintain instructor currency for each qualified event. Those who exceed 12-months will be re-certified **IAW para. 5.4.2**. **(T-2)**

5.4.3.5. Members will be re-certified on at least one LL-event every 24 months.

#### 5.5. AFECT Requirements.

5.5.1. Newly assigned or visiting aircrew are required to be trained on unique/local AFE requirements to include equipment configurations and individual survival components. This will be accomplished during LL01. Aircrew being assigned from a training unit to an operational (non-training) unit experience significant MDS differences in AFE equipment/aircraft configurations from their previous training location and will need to re-accomplish LL06 at their new operational unit/squadron. **(T-2)**

5.5.2. Aircrew assigned to multiple MDS units/locations must ensure they accomplish MDS specific LL06 before they operate/fly in an aircraft they do not have current LL06 training in. **(T-1)**

5.5.3. The Air Armament Center and AF Flight Test Center (AFFTC) should maintain the ability to send qualified training instructor(s) and suitable training aids TDY to field activities unable to obtain the minimum training from host bases or contractors. When it is more appropriate and less costly, personnel may be sent TDY to Air Armament Center or AFFTC

for training. The requesting unit is responsible for scheduling and providing TDY funds to support this training. **(T-3)**

## **5.6. Miscellaneous Training.**

5.6.1. In support of AFI 32-2001, *Fire and Emergency Services (F&ES) Program*, AFE provides training on flight equipment fundamentals and hazards as it relates to local aircrew extraction training requirements. AFE is only responsible for training the Fire Department's lead trainers and providing updates on newly fielded equipment. See **para 5.9** of this instruction for lesson plan requirements. **(T-2)**

## **5.7. AFECT Event Descriptions.**

5.7.1. AFECT event descriptions for LL02 *Emergency Egress Training, Ejection Seat*, LL03 *Emergency Egress Training, Non-Ejection Seat*, and LL05 *Egress Training with ACBRN* are contained in AFMAN 11-202, Volume 1, *Aircrew Training*.

5.7.2. Lead commands will be OPR for developing core curriculum for the following blocks of instruction. LCs will provide AFECT event guidance in applicable AFMAN 11-2MDS publications and AFMAN 10-3500 Volume 1, *Air Force Special Warfare Training Program*. **(T-2)**

5.7.3. AFE Familiarization (LL01).

5.7.3.1. A one-time event, per every base assignment. It should be conducted during aircrew in processing. Ensure this requirement is complete prior to the first flight at home station. **(T-1)**

5.7.3.2. The event will familiarize aircrew members with local AFE policies and procedures to include equipment issue, use, local aircraft and equipment configurations (includes survival components), inspection and fit-check cycles, pre-flight, and post-flight requirements.

5.7.4. Aircrew chemical, biological, radiological, nuclear training (LL04).

5.7.4.1. An academic and equipment training session in which the aircrew member demonstrates and performs donning, doffing, and buddy dressing procedures using ACBRN equipment.

5.7.4.2. This training also includes information on hazards and limitations of wearing the equipment properly and improperly, preflight procedures, aircraft integration, and ACCA/ACCS processing.

5.7.4.3. Each aircrew will demonstrate procedures during their initial class; subsequent classes require a minimum of 10 percent of aircrew participants to dress out and demonstrate ACCA/ACCS procedures. **(T-2)**

5.7.4.4. An aircrew member may be credited with ACBRN (LL04) during local exercises provided all AFECT requirements and objectives are satisfied, (i.e., Academic instruction, with a minimum 10 percent performance of donning of ACBRN equipment, and subsequent ACCA/ACCS processing) **(T-2)**

5.7.5. Aircrew Flight Equipment Training (LL06).

5.7.5.1. An academic and equipment training event, in which aircrew members demonstrate their ability to locate, preflight, and use all aircrew and passenger AFE carried aboard unit aircraft or issued to aircrew members.

5.7.5.2. This training includes the limitations and safety issues related to AFE. Additionally, include aircrew clothing items and information on hazards associated with improper wear and failure to use only authorized clothing and equipment items.

5.7.5.3. MDS specific training equipment will be available and presented during LL06. **(T-2)**

#### 5.7.6. AFE Fit Check (LL07)

5.7.6.1. A comprehensive sizing and fit check of individually issued (non-temporary) flight equipment worn in ejection seat aircraft, specifically that which is sized/fitted/adjusted for a particular aircrew member (e.g., helmet and O2 mask, survival vest, torso harness and anti-G-suit). Accomplish prior to first flight, at every new assignment, and IAW **Table 5.1**. **Exception:** Pooled equipment shared across aircrew only require fit prior to flight. Pilots accomplishing U-2 high altitude flights, using the full pressure suit, perform fit and leak tests prior to each flight and are exempt from LL07. **(T-2)**

5.7.6.2. AFE gear worn during flight in non-ejection seat aircraft (e.g., any sized/fitted item to include aircrew laser eye protection, nuclear flash blindness goggles, and night vision goggle mounting, etc.) will be checked and verified for proper size/fit prior to first flight at every new assignment and every 3 years or IAW **Table 5.1** Aircrews performing duties on aircraft without individually fit or sized AFE requirements are exempt from this requirement. **(T-2)**

#### 5.7.7. ACBRN Fit Check (LL08).

5.7.7.1. A comprehensive size and fit check of ACBRN equipment.

5.7.7.2. Ejection seat aircrew will complete LL08 once per assignment, not to exceed every 3 years and IAW **Table 5.1** For scheduling efficiency, ejection seat aircrew should receive LL08 concurrently with LL07 (during the corresponding/closest LL07 cycle). Ejection seat units will document LL07 and LL08 on AF Form 1522, *ARMS Additional Training Accomplishment Report* as separate events. **(T-2)**

### 5.8. Training Aids and Equipment.

5.8.1. Emergency egress training will be accomplished using the appropriate emergency procedures trainer (EPT), when available, and will mirror operational equipment to the maximum extent possible (e.g., oxygen panel, helmet mounted cueing system connector, aircrew eye/respiratory protection). Only when an EPT is not available will an actual ejection seat aircraft be used. Non-ejection seat egress training will be conducted using actual aircraft to the maximum extent possible. **(T-2)**

5.8.1.1. Units will develop an EPT inspection checklist using EPT manuals and applicable TOs. **(T-3)**

5.8.1.2. It is recommended that unit POCs contact the ACC Detachment 1 Training Support Squadron (TRSS), Training Systems Center, Luke AFB AZ for EPT guidance, maintenance, and support. **(T-2)**

5.8.2. AFECTIs will ensure training devices are properly configured, safe, and operational for training use. This includes EPT, displays, ACBRN equipment, flight equipment, and Personnel Lowering Devices. Lead AFECTI will ensure annual inspections are conducted and documented in AFERMS. **(T-2)**

5.8.3. Classic associate and active associate AFE functions operating under TFIA organizations will use the following guidance for managing AFECT “For training use only” (FTUO) flight equipment. **(T-2)**

5.8.3.1. The host AFE unit (i.e., the unit that owns the aircraft) will manage and account for all AFECT FTUO flight equipment. AFECT FTUO flight equipment will be shared by both the host and the tenant to support AFECT events. **(T-2)**

5.8.3.2. Inspection, maintenance, marking, tracking, etc., of AFECT FTUO flight equipment should be a shared responsibility by the host and tenant AFE sections.

5.8.4. FTUO flight equipment will mirror operational equipment to the maximum extent possible. Equipment used for training will be clearly marked "FOR TRAINING USE ONLY" and stored to prevent co-mingling with operational equipment. Due to unavailability of like training assets, non-FTUO premeditated parachute equipment may be used for training if the training does not damage or destroy the integrity of the equipment. Coordinate any deviation from this “hands-on” training model with respective MAJCOM/FOA. **(T-2)**

5.8.5. See AFMAN 11-301V2 for ACBRN training equipment management.

5.8.6. Maintain training assets in sufficient quantities to allow each student hands-on training. AFECT FTUO equipment quantities will be driven by the average class attendance numbers not to exceed applicable DPAS-FSM authorizations. **(T-2)**

5.8.7. F-35 units may use operational equipment for training as long as the training does not damage or compromise the integrity of the equipment. When equipment is not available (e.g., Seat Kit Components), units may use pictures of the equipment to ensure all required equipment is discussed to the maximum extent possible. As training equipment is delivered, units will use training equipment in lieu of operational equipment or pictures. **(T-2)**

## **5.9. AFECT Lesson Plan Development.**

5.9.1. AFECT AFMLPs are owned by AF/A3TH with content managed by LCs and posted on the HQ USAF AFE SharePoint®. **(T-1)**

5.9.1.1. If lesson plans do not include needed local requirements, the unit AFES/AFE COR will update the lesson plan with local requirements and forward to their respective MAJCOM staff. MAJCOM staffs will then coordinate with the LC, if applicable, for approval.

5.9.1.2. Units may omit information from approved lesson plans that do not pertain to their mission/unit. Lesson plans will be updated with new equipment and/or training requirements by the LC and forwarded to AF/A3TH for AFMLP inclusion.

5.9.2. AF/A3TH will oversee annual reviews of LL AFMLPs and will publish LC-requested quarterly. Quarterly update changes will be annotated on the change summary page of the MLP.

5.9.2.1. Unit tailored lesson plans used to conduct AFECT will be reviewed annually by the AFES/AFE COR and documented within the lesson plan. **Note:** Individual lesson plans are not permitted. **(T-2)**

5.9.2.2. Unit tailored lesson plans for LL06 will be used to provide tailored instruction to the Fire Department lead trainers to satisfy related aircrew extraction training requirements/flight equipment “fundamentals” knowledge. **(T-2)**

5.9.3. HHQs correspondence (e.g., messages, Flight Crew Information Files, etc.) directing the inclusion of information not covered in AFECT AFMLPs lesson plans will be added as required by the MAJCOM. **(T-2)**

## 5.10. AFECT Safety.

5.10.1. Safety is paramount when planning and conducting AFECT. As a minimum, the following will apply:

5.10.1.1. To meet OSHA requirements, the AFES/AFE COR, with assistance from the local safety office, will develop and implement Risk Management (RM) programs and techniques specific for each AFECT event and document in an Emergency Action Plan. **(T-2)**

5.10.1.2. An Emergency Action Plan includes comprehensive measures to be taken during events where the chance of injury is increased. The AFES/AFE COR should tailor EAP template in AFMLP with assistance from the local safety office to mitigate increased risks associated with certain training events. EAPs must be initially validated/tested prior to first implementation, annually reviewed for currency by AFES/AFE COR and briefed prior to all applicable training events. **(T-2)**

## 5.11. AFECT Documentation.

5.11.1. All completed AFECT events will be documented on AF Form 1522 or equivalent IAW AFMAN 11-202V1 and forwarded to squadron aviation resource management (SARM)/host aviation resource management (HARM) office for input into Aviation Resource Management System.

5.11.1.1. Only those appointed in writing by the AFES are permitted to certify LL-event AF Form 1522. Instructors will print and sign their name in the instructor certification block. Provide a copy of the appointment letter to SARM/HARM office. **(T-2)**

5.11.1.2. Only those event identifiers shown in [Table 5.1](#) of this instruction will be used to identify AFECT events. **(T-2)**

5.11.1.3. AFECTI and aircrew instructors may not receive LL-event credit for the same class they taught. **(T-2)**

5.11.2. AFE is not responsible for maintaining, managing, and tracking aircrew training, or tracking Mission Ready status for AFECT events in Aviation Resource Management System. **(T-2)**



5.11.2.1. AFE is not responsible for maintaining copies of AF Form 1522s once received by SARM/HARM office. (T-3)

5.11.2.2. When instructing visiting aircrew not assigned to the local unit, the AFECTI will forward the completed AF Form 1522 to the SARM/HARM office, which will then be forwarded to the home unit, IAW guidance in AFMAN 11-202V1. (T-2)

**Table 5.1. AFECT REQUIREMENTS. (T-2)**

| <b>Note:</b> AFECT courses may be instructed concurrently with other complimentary LL events, as long as all required learning objectives are accomplished.  |  |                  |              |
|--|--|------------------|--------------|
| <b>Task ID</b>   | <b>Event Description</b>                     | <b>Frequency</b> | <b>Notes</b> |
| LL01   | AFE Familiarization                          | Initial          | 1, 3, 5      |
| LL02   | Emergency Egress Training, Ejection Seat     | Recurring        | 3, 4         |
| LL03   | Emergency Egress Training, Non-Ejection Seat | Recurring        | 3, 4         |
| LL04   | Aircrew CBRN Training                        | Recurring        | 4            |
| LL05   | Egress Training with ACBRN                   | Initial          | 2, 4         |
| LL06   | Aircrew Flight Equipment Training            | Recurring        | 4            |
| LL07   | Aircrew Fit Check                            | Recurring        | 1, 3, 4, 5   |
| LL08   | ACBRN Fit Check                              | Recurring        | 2, 5         |
| <b>Notes:</b>  |  |                  |              |
| 1. Accomplished before first flight at each base of assignment.  |  |                  |              |
| 2. Must be accomplished one time in assigned MDS aircraft before first flight using ACBRN.   |  |                  |              |
| 3. Grounding items: Unless otherwise stated in AFMAN 11-202V1, AFMAN 11-2MDS, AFMAN 10-3500V1 or RAP tasking memo, the following events are grounding: LL01, LL02, LL03, LL06 (initial only) and LL07. |  |                  |              |
| 4. Frequencies are identified in AFMAN 11-202V1, AFMAN 11- 2MDS-series, AFMAN 10-3500V1 or RAP Tasking Memo  |  |                  |              |
| 5. No specific AFECTI qualification required.  |  |                  |              |

## Chapter 6

### AFE QUALITY ASSURANCE (QA) PROGRAM

#### 6.1. Purpose.

6.1.1. The AFE Quality Assurance program is a commander's program. The QA program validates and verifies equipment, technician, and program compliance with technical orders, instructions, and standards. It does this through comprehensive evaluations, inspections, measurements, and reporting. A successful QA program is essential to determining safe and effective direct sortie production, flight operations, and aircrew performance.

6.1.2. Assessments, evaluations, and inspections are the formal avenues used to ensure the effectiveness of AFE procedures and identify areas for improvement. They provide leadership with information about the health and effectiveness of the AFE program and its training. Accurate assessments of personnel proficiency and processes are critical to gauging program effectiveness.

#### 6.2. Program Development and Execution:

6.2.1. QA program development and success depends on selecting the most qualified personnel to fill the roles of NCOIC/ANCOIC QA, QI, and IPI.

6.2.2. Use this instruction as a training tool. Ensure personnel have the appropriate qualifications to fill their selected roles and ensure all training documentation and appointment letters are accomplished. Training must cover purpose, methodology, responsibilities, inspection, evaluation, trend identification, documentation, reporting, and process improvement techniques. (T-2)

**Table 6.1. Minimum Documentation Citing Qualifications and Appointment.**

|   |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
|---|---|---|---------------------------|----------|--------------|----------|----------------------------------|----------|---|----------|-------------------------------|----------|------------------------------|----------|-------------------------|-----------|--------------|-----------|------------------------------------|-----------|-------------------------------------|-----------|----------------------------------|
| A. NCOIC(s), QA appointment letter  | <b>CFETP/Training Record Task Example</b> <table border="1"> <tr> <td>2.20.9</td> <td>Quality Assurance Program</td> </tr> <tr> <td>2.20.9.1</td> <td>Fundamentals</td> </tr> <tr> <td>2.20.9.2</td> <td>Manage Quality Assurance Program</td> </tr> <tr> <td>2.20.9.3</td> <td>Analyze Quality Assurance/Control Results</td> </tr> <tr> <td>2.20.9.4</td> <td>Perform Personnel Evaluations</td> </tr> <tr> <td>2.20.9.5</td> <td>Create Trend Analysis Report</td> </tr> <tr> <td>2.20.10.</td> <td>Quality Control Program</td> </tr> <tr> <td>2.20.10.1</td> <td>Fundamentals</td> </tr> <tr> <td>2.20.10.2</td> <td>Quality Control Program Management</td> </tr> <tr> <td>2.20.10.3</td> <td>Conduct Quality Control Inspections</td> </tr> <tr> <td>2.20.10.4</td> <td>In-Process Inspection Procedures</td> </tr> </table> | 2.20.9                                    | Quality Assurance Program | 2.20.9.1 | Fundamentals | 2.20.9.2 | Manage Quality Assurance Program | 2.20.9.3 | Analyze Quality Assurance/Control Results | 2.20.9.4 | Perform Personnel Evaluations | 2.20.9.5 | Create Trend Analysis Report | 2.20.10. | Quality Control Program | 2.20.10.1 | Fundamentals | 2.20.10.2 | Quality Control Program Management | 2.20.10.3 | Conduct Quality Control Inspections | 2.20.10.4 | In-Process Inspection Procedures |
| 2.20.9  |   | Quality Assurance Program                 |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.9.1  |   | Fundamentals                              |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.9.2  |   | Manage Quality Assurance Program          |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.9.3  |   | Analyze Quality Assurance/Control Results |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.9.4  |   | Perform Personnel Evaluations             |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.9.5  |   | Create Trend Analysis Report              |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.10.  |   | Quality Control Program                   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.10.1   |   | Fundamentals                              |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.10.2   |   | Quality Control Program Management        |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.10.3   | Conduct Quality Control Inspections   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| 2.20.10.4   | In-Process Inspection Procedures  |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| B. QI appointment letter  |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| C. IPI appointment letter   |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| D. Training record tasks completed for QA, QI, or IPI duties  |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| E. Training record tasks complete on related equipment  |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| <b>Note:</b> ALCs will use structured OJT, special skill qualifications, and civilian training plans in lieu of CEFTP/training records. (T-2) |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |
| <b>Note:</b> Appointment letters may be combined into a single letter.  |   |   |                           |          |              |          |                                  |          |   |          |                               |          |                              |          |                         |           |              |           |                                    |           |                                     |           |                                  |

**6.3. QA Program Guidance:**

6.3.1. The NCOIC, AFE QA will author QA guidance for input into the unit OI/SOP with final approval from the AFES. At a minimum, incorporate requirements set forth in **Table 6.2. (T-2)**

6.3.2. Weekly, QA personnel will randomly evaluate a small sample of equipment and aircraft (if applicable) that has received QCI. These evaluations will cover different sections, equipment types and Quality Inspectors. Publish a sampling strategy in Tab F of the unit policy requirements to ensure adequate coverage. (T-2)

**Table 6.2. Minimum Unit Policy Requirements.**

|  |
|--|
| A. AF/A3TH AQLs or reference to guidance   |
| B. Trend policy (what constitutes a trend)   |
| C. Training requirements to fill AFE QA, IPI, and QI duties (in addition to this instruction)          |
| D. Guidance for correcting discrepancies/deficiencies  |
| E. QCI, PE, PPR, SA requirements more restrictive than those in this instruction (unit option)         |
| F. PPR plan and/or schedule  |
| G. Define how AFES/AFE QA will notify personnel of & correct monthly QA program trends, findings, etc. |
| H. TO program guidance   |

#### 6.4. Self-Assessment:

6.4.1. A Self-Assessment is used to identify and mitigate constraints, deficiencies, or weaknesses, and improve the AFE program's ability to produce efficient, effective, and compliant outcomes.

6.4.2. Unless already determined by CCIP, self-assessments will be accomplished annually and NLT 120 days after new AFES appointment. Deficiencies will be reviewed monthly until resolved. As a stand-alone requirement, the SA will not be dual credited by other outside agency inspections. **(T-2)**

6.4.3. At a minimum, utilize AF/A3TH and MAJCOM SACs in MICT as AFE management tools. Use MICT to communicate all aspects of program management successes and limiting factors to the chain- of-command. **(T-2)**

6.4.3.1. Units may create locally developed checklists, as they deem necessary per AFI 90-201 guidance. Locally developed checklists are managed at the unit level and fall within the CCIP. **(T-3)**

6.4.3.2. The mandatory supporting documents list for MICT can be found on the HQ USAF AFE SharePoint®.

6.4.4. Capture SA results in memorandum format and retain for three years. At a minimum, the memorandum should detail programs, sections and personnel assessed or not assessed, results for each assessed area, whether observations were repeat findings if negative, recommendations and references for negative observations, summary analysis for the flight. **(T-2)**

6.4.5. Employ applicable HAF, MAJCOM, and wing SACs in the following manner (see **Table 6.3**). Minor deviations are authorized. **(T-2)**

**Table 6.3. Self-Assessment (SA) Process (T-2).**

|  |                                  |
|--|----------------------------------|
| Step 1. AFES determines compliance or non-compliance   |                                  |
| Step 2. AFES documents compliance or non-compliance in MICT  |                                  |
| Step 3. AFES/AFE QA develops SA CAP in MICT  |                                  |
| Step 4. Assigned personnel fix the non-compliance and AFES reviews/closes in MICT  |                                  |
|  |                                  |
| Self-Assessment Decision Point Variables   |                                  |
| Does the observation...  |                                  |
| -have "major" discrepancies?   | -affect readiness?               |
| -necessitate technician training?  | -reveal potential AFI/TO errors? |
| -necessitate supervisor training?  | -require AFI/TO clarification?   |
| -necessitate AFE Flight training?  | -involve outside agencies?       |
| -require training record documentation?  | -place integrity in question?    |
| -reveal a trend?   |                                  |
|  |                                  |
| <b>Note:</b> When documenting self-assessment issues, use the following reporting structure.   |                                  |
| - Identify discrepancy and reference   |                                  |
| - Identify root cause  |                                  |
| - Determine the scope of the issue, e.g., this issue affects all parachutes or affects only 20 percent of parachutes, only affects the training program, etc.... |                                  |
| - Determine and explain approach to mitigate or eliminate the issue, e.g., technicians will be re-trained  |                                  |
| - Provide an Estimated Completion Date (ECD)   |                                  |

**6.5. Periodic Program Review (PPR):**

6.5.1. A PPR is a compliance verification appraisal of key AFE areas. The PPR provides the basic AFE program valuation categories that need continual assessment. A review can be conducted on an entire program as a whole or in-part (over time "in-part" reviews must result in 100% coverage). See Tables 6.4 and 6.5.

6.5.2. The NCOIC/ANCOIC, AFE QA or designated representative will perform PPRs. PPRs are documented in AFERMS but can also be added to MICT if the AFES deems necessary or if the discrepancies cannot be resolved within 30 days. Additional programs can be added and will be listed in unit guidance. (T-2)

**Table 6.4. Periodic Program Review (PPR) Process (T-2).**

|  |                    |
|--|--------------------|
| Step 1. AFE QA determines deficiency or no deficiency                                    |                    |
| Step 2. AFE QA documents PPR deficiency or no deficiency in AFERMS                       |                    |
| Step 3. Assigned personnel fix the deficiency and closes in AFERMS                       |                    |
| Step 4. AFE QA NCOIC gathers all PPR data for M-QAR                                      |                    |
|  |                    |
| Periodic Program Review Decision Point Variables   |                    |
| If the answer is 'yes' to any of the below questions, notify AFES or delegated authority |                    |
| Does the deficiency...   |                    |
| -have "major" discrepancies?   | -affect readiness? |

|   |                                  |
|---|----------------------------------|
| -require identification in MICT?        | -reveal potential AFI/TO errors? |
| -necessitate technician training?       | -require AFI/TO clarification?   |
| -necessitate supervisor training?       | -involve outside agencies?       |
| -necessitate AFE Flight training?       | -place integrity in question?    |
| -require training record documentation? |                                  |
| -reveal a trend?                        |                                  |

**Table 6.5. Minimum Mandatory PPRs and Frequency (T-2).**

| Program  | Frequency |
|--|-----------|
| Technician Training                                    | Quarterly |
| Quality Control  | Quarterly |
| Aircrew Flight Equipment Continuation Training (AFECT) | Quarterly |
| Quality Assurance/MICT (done by AFES or AFEFC)         | Quarterly |
| Supply/Equipment Accounts                              | Quarterly |
| Composite Tool Kit (CTK)                               | Quarterly |
| Test Measurement Diagnostic Equipment (TMDE)           | Quarterly |
| Automated Data Systems/Data Quality                    | Quarterly |
| TO Program   | Quarterly |
| Red X Program/Flightline Procedures                    | Quarterly |
| Facilities/Resource Protection                         | Annually  |
| Munitions/Hazardous Communication (HAZCOM)             | Annually  |
| Safety   | Annually  |
| Vehicles   | Annually  |
| Aircrew Support  | Annually  |

**6.6. In-Process Inspection (IPI).**

6.6.1. An IPI is a TO-directed inspection or verification step at a critical point in the installation, assembly, or reassembly of a system, subsystem, or component. AF/A3TH or MAJCOMs may issue Special Interest Items (SIIs) or QA Flashes when the AFECFM/MFM determines special emphasis needs to be placed on equipment and/or inspection processes. The term IPI is equal to a critical point inspection (CPI) and/or Rigger Check (RC), as found in various service manuals, and will be the only term used on all inspection sheets. (T-2) See [Table 6.6](#).

6.6.2. At a minimum, IPIs will be conducted on initial and repack of parachutes, multi-place life rafts, ejection seat life preservers, escape slides, ejection seat and ML-4 survival kits. (T-1) **Exception:** B-52 Drag Parachutes do not require IPIs.

6.6.2.1. LCs are responsible for ensuring TO inclusion of both IPI steps and IPI sheets for documenting IPI steps. **Note:** Multiple local equipment IDs may be added to a single IPI form only when the equipment has the same inspector, IPI qualified 1P071, and inspection date.

6.6.2.2. With MAJCOM input, AF/A3TH is responsible for premeditated parachute IPI sheet management. IPI sheets for commercial parachute systems will be posted on the USAF AFE SharePoint®.

6.6.2.3. ALC locations may use Work Control Documents to satisfy IPI form requirements if the format/content is approved by the AFES. The AFMC MFM must be included in annual reviews/modifications of the Work Control Documents.

6.6.3. Enforce the Two-Person Concept when performing IPIs on flight equipment. A Two-Person concept means a qualified IPOX1 must perform the inspection and the IPI must be performed by someone other than the technician performing the periodic inspection. Only the technicians performing the inspection, repack, and/or repair or the qualified IPI inspector will annotate IPI records. **Note:** When equipment requires multiple IPIs, efforts should ensure the same IPI-qualified technician performs each IPI as much as possible. **(T-2)**

6.6.4. When an IPI is completed, the form can be uploaded to AFERMS as an option. IPI sheets will remain on file until the next inspection/repack, repair, or aircraft transfer. Ensure all IPI records are maintained in a manner that provides 100% accountability and is readily accessible. **(T-2)**

6.6.5. Missing or incomplete IPI documentation will result in equipment immediately being removed from service and re-inspected. Notify leadership if a removal will/could impact flying operations/scheduling. ALC locations will forward IPI forms (or Work Control Document equivalent) to owning organizations for work performed at depot upon aircraft return to home station. **(T-2)**

**Table 6.6. Equipment IPI Process (T-2).**

|   |                                  |
|---|----------------------------------|
| Step 1. Inspector determines discrepancy or no discrepancy                              |                                  |
| Step 2. Inspector documents IPI sheet (no discrepancy) or AF Form 2420 (discrepancy)    |                                  |
| Step 3. Discrepancy is fixed by the technician and documents AF Form 2420               |                                  |
| Step 4. Inspector reviews fixed discrepancy. If discrepancy is corrected move to step 5 |                                  |
| Step 5. File and retain IPI sheet until next inspection/repack is completed             |                                  |
| Step 6. NCOIC, AFE QA gathers IPI discrepancy trend data for M-QAR                      |                                  |
|   |                                  |
| In-process Inspection Decision Point Variables  |                                  |
| If the answer is ‘yes’ to any of the below questions, notify NCOIC, AFE QA              |                                  |
| Does the deficiency...  |                                  |
| -have “major” discrepancies?  | -make this discrepancy a trend?  |
| -require identification in MICT?  | -reveal potential AFI/TO errors? |
| -necessitate technician training?   | -require AFI/TO clarification?   |
| -necessitate supervisor training?   | -place integrity in question?    |
| -necessitate AFE Flight training?   |                                  |
| -require training record documentation?   |                                  |

### 6.7. Quality Control Inspection (QCI).

6.7.1. A QCI is a process of visual examination without disassembly of equipment. QCIs can also include inspections of AFE procedures to ensure the highest level of product quality and work-center efficiency. See [Table 6.7](#).

6.7.2. Unless directed otherwise, QCIs will be performed on a minimum of 10 percent of each equipment type inspected daily, including post-flight of in-shop equipment. For units with unique circumstances, MAJCOMs will develop guidance to meet QCI intent. (T-2)

6.7.3. QCIs will be performed on 100 percent of all survival kits (not to include SRU-16/P minimum survival kit), hand-held radios loaded with Special Instructions, multi-place life rafts/escape slides, all variations of inspected/repacked parachute assemblies, all new equipment build-ups (e.g., parachutes, harness, helmet, LPU), and equipment inspected/received from supporting agencies. (T-2)

6.7.4. QCIs will be performed on 100 percent of all equipment inspected/repacked by any AFE technician that is not signed-off/certified on the task or equipment. (T-2)

6.7.5. QCIs will be performed on at least 10 percent of daily aircraft mission termination inspections (MTIs). (T-2)

6.7.6. Section Chiefs/NCOICs will ensure QCIs are accomplished, and discrepancies corrected, prior to equipment being placed back into service. The original technician will correct all discrepancies, however, in extreme circumstances (unavoidable situations where the original technician is not available), another qualified AFE technician will correct discrepancies in a timely manner. If the correction requires an equipment item to be opened from a packed configuration, then the new technician will complete a new inspection and repack and update all documentation. (T-2)

6.7.7. Ensure QCI corrective action remarks in AFERMS include at a minimum: the source reference, page, paragraph number, date corrected, corrective actions taken, and initials of person correcting the discrepancy. AF Forms 2420 or local equivalents are temporarily authorized only when AFERMS cannot be accessed but must be transcribed/uploaded when it becomes available. (T-2)

6.7.8. All QCIs will be documented in AFERMS. (T-2)

**Table 6.7. Equipment QCI Process (T-2).**

|  |   |
|--|---|
| Step 1. QI determines discrepancy or no discrepancy                                      |   |
| Step 2. QI documents QCI discrepancy or no discrepancy in AFERMS                         |   |
| Step 3. Assigned personnel fix the discrepancy and documents corrective action in AFERMS |   |
| Step 4. QI reviews fixed discrepancy to ensure corrective action was accurate            |   |
| Step 5. NCOIC, AFE QA gathers QCI discrepancy trend data from AFERMS for M-QAR           |   |
| Quality Control Inspection Decision Point Variables                                      |   |
| If the answer is "yes" to any of the below questions, notify NCOIC, AFE QA               |   |
| Does the QCI...  |   |
| -have "major" discrepancies?   | -require training record documentation? |
| -exceed AQLs?  | -make this discrepancy a trend?         |
| -require identification in MICT?   | -reveal potential AFI/TO errors?        |
| -require additional QCI by QA?   | -require AFI/TO clarification?          |
| -necessitate technician training?  | -involve outside agencies?              |
| -necessitate supervisor training?  | -reveal a manufacturer defect?          |
| -necessitate AFE flight training?  | -place integrity in question?           |



## 6.8. Personnel Evaluation (PE).

6.8.1. As a key part of the QA program, PEs represent the direct evaluation of an AFE action, inspection, or training conducted/performed by an individual or team. PEs are used to evaluate job proficiency, degree of training, and compliance with official guidance. A PE is not the same as a task evaluation (TE) of a trainee, which is a facet of on-the-job training. A PE will be used when AFE QA is evaluating trainer/trainee qualifications, proficiency, and performance. (T-1) See [Table 6.8](#).

6.8.2. PEs may be conducted on task-oriented functions such as equipment maintenance as well as process-oriented functions such as CTK management. Any individual performing, supervising, or evaluating AFE tasks is subject to a PE. PEs do not require observation of a task from start to finish and may be conducted in whole or in part. PEs will be given a “Pass” or “Fail” rating based on AQLs.

6.8.3. Decertify a member on the piece of equipment who fails a PE. The AFELT will develop a plan to retrain the member on the item. Document the PE, decertification, retraining, and reevaluation in the member’s training records. If the individual’s training is deemed the root cause of the failure, a trainer/certifier outside the original training chain will re-accomplish the training and certify the member. (T-1)

**Table 6.8. Performance Evaluation (PE) Process.**

|   |   |
|---|---|
| Step 1. Evaluator observes prep work area, references, CTK, TMDE, and PPE (if required) |   |
| Step 2. Observe task performance on equipment, program, or process                      |   |
| Step 3. Document evaluation in AFERMS and training records. Provide feedback.           |   |
| Step 4. Execute remedial training plan if required                                      |   |
| Step 5. NCOIC, AFE QA gathers all PE data from AFERMS for M-QAR                         |   |
| Personal Evaluation Decision Point Variables  |   |
| If the answer is ‘yes’ to any of the below questions, notify AFES                       |   |
| Does the PE...  |   |
| -have “major” discrepancies?  | -require training record documentation? |
| -exceed AQLs?   | -reveal potential AFI/TO errors?        |
| -necessitate technician training?   | -require AFI/TO clarification?          |
| -necessitate supervisor training?   | -place integrity in question?           |
| -necessitate AFE Flight training?   |   |

## 6.9. Observations.

6.9.1. Observations represent observed events or conditions with safety implications or technical violations not related to an evaluation or inspection that are considered unsafe, not IAW established procedures, or in the case of equipment, unfit to operate. Any technician can report an observation. Document observations in AFERMS and report to the AFES through the NCOIC, AFE QA. Observations include the following:

6.9.2. Detected Safety Violation (DSV). A DSV is an observed unsafe act by an individual. Any member may report or stop a DSV at any time. Report all safety incidents to the squadron safety representative IAW local safety policy. During any QA process and when noted, the

AFE QA representative must stop the unsafe act immediately. Do not document a separate DSV on an individual undergoing a direct evaluation since the unsafe act automatically results in a "Fail" rating. Annotate the reason for failure as "Safety" when a safety violation is committed during an evaluation. **(T-2)**

6.9.3. Technical Data Violation (TDV). A TDV is an observation of any person performing maintenance without the proper technical data available, available but not in use or not following the correct sequence of steps (if directed). The technician must have knowledge of all general directives associated with the job prior to performing the task. However, those directives applicable to the task being performed must be present at the job site. Do not document a separate TDV on an individual undergoing a PE, since failure to use technical data automatically results in a "Fail" rating. Annotate the reason for failure as "Tech Data" when a TDV is committed during an evaluation. **(T-2)**

6.9.4. Unsatisfactory Condition Report (UCR). A UCR is an unsafe or unsatisfactory condition, other than a DSV, chargeable to the work center supervisor. UCRs will be documented even when it is not possible to determine who created the condition. **(T-2)**

## **6.10. Discrepancy/Deficiency Terms and Classification.**

6.10.1. Acceptable Quality Levels (AQLs). An AQL denotes the maximum allowable number of minor findings that a process or product may be charged for the task to be rated "Pass." It must be strict enough that the task, process, or product meets an acceptable level of quality. Once the maximum number of allowable write-ups is **exceeded**, the equipment is returned for re-inspection, the task is rated as a "Fail," and a course of corrective action is decided.

6.10.2. A major discrepancy is defined as a condition that would endanger personnel, jeopardize equipment or system reliability, impact safety of flight or warrant discontinuing the process or equipment inspection. Any major discrepancy will result in an automatic re-inspection and NCOIC, AFE QA notification for possible action (recommend decertification, additional training, etc.).

6.10.3. A minor discrepancy is defined as an unsatisfactory condition that requires repair or correction, but does not endanger personnel, impact safety of flight, jeopardize equipment reliability or warrant discontinuing a process or equipment operation. A minor discrepancy is one that will not affect the operation of the equipment but prevents the equipment from being 100 percent compliant with current directives/TO procedures. Administrative discrepancies also fall in this category.

6.10.4. A deficiency is an inspection finding that has been validated against established guidance. Normally deficiencies are noted during PPRs and SAs.

6.10.5. A trend is a positive or negative tendency identified during equipment, programs, or process reviews that are statistically detectable. Units will define trends in local guidance and highlight trends in the M-QAR. Determine how many QCIs, PPRs, PEs, IPIs were accomplished and how many deficiencies were found related to those reviews. Out of the total number of deficiencies found, determine what constitutes the trend(s). Continuous communication between flight leadership, supervision, and AFE QA personnel is essential to maintain proper program focus.

### 6.11. Monthly Quality Assurance Report (M-QAR).

6.11.1. The NCOIC, AFE QA will compile all data from the month's inspections, assessments, evaluations, and reviews for M-QAR development. Use the report manager function in AFERMS to capture the data in **Table 6.9. (T-2)**

**Table 6.9. M-QAR (T-2).**

|  |
|--|
| <b>Section I. Task Qualified Personnel Data</b>  |
| A. Number of periodic inspections completed by task qualified personnel and listed by nomenclature   |
| B. Number of QCIs completed by task qualified and listed by nomenclature   |
| C. Quotient of QCIs divided by periodic inspections and listed by nomenclature (percentage)<br>Example: 5 QCIs divided by 50 inspections ( $5 \div 50 = .10$ or 10%) |
| D. Number of periodic inspections by nomenclature that had discrepancies vs. those without   |
| E. A brief synopsis of noted positive or negative trends, percentages met/not met/exceeded, AQLs exceeded, major discrepancies, etc.                                 |
| <b>Section II. Task Unqualified Personnel Data</b>   |
| A. Number of periodic inspections completed by unqualified personnel and listed by nomenclature  |
| B. Number of QCIs completed by unqualified and listed by nomenclature  |
| C. Number of periodic inspections by nomenclature that had discrepancies vs. those without   |
| D. A brief synopsis of noted positive or negative trends, percentages met/not met/exceeded, AQLs exceeded, major discrepancies, etc.                                 |
| <b>Section III. PE, PPR, and Observation Data</b>  |
| A. Number of PEs performed and listed by equipment, process, or program  |
| B. Number of PPRs performed and listed by program or process   |
| C. Number of Observations (DSV, TDV, UCR) listed in detail   |
| D. A brief synopsis of noted positive or negative trends, goals met/not met/exceeded, AQLs exceeded, major discrepancies, etc.                                       |

6.11.2. The M-QAR will be forwarded to the AFES for review. Results of the M-QAR will be briefed to all AFE personnel in the work center. The AFES, NCOIC AFE QA, AFEFC, or Section Chief will give monthly briefings either delivered in person or electronically. The AFES and NCOIC, AFE QA will evaluate these reports for potential training opportunities, program changes, and/or rotation of personnel. Provide M-QARs to the OSS/CC (or equivalent) monthly to maintain program awareness and brief M-QARs to CCs when deficiencies reveal safety, integrity, and/or readiness problems. Retain M-QARs for 12 months. **(T-2)**

## Chapter 7

### PREMEDITATED PARACHUTE PROGRAMS

#### 7.1. General.

7.1.1. The term “Rigger,” is used throughout and applies to military, civilian and contracted AFE personnel who have completed requisite formal parachute rigging courses outlined below. AFE Riggers supporting and/or conducting premeditated parachute operations will comply with all requirements outlined in this publication. **(T-2)**

7.1.2. This policy compliments AFI 10-3503, *Personnel Parachute Program*, if there is conflicting guidance is found between this publication and AFI 10-3503, elevate to the publications’ OPRs for adjudication. **(T-1)**

#### 7.2. Manpower.

7.2.1. AFE Rigger skills are critical to operational readiness and combat effectiveness. Supporting premeditated parachute programs requires niche qualifications and certifications, which may take up to two years to earn. RegAF MFMs will add Special Experience Identifier (SEI) 077, *Premeditated Parachute Program*, to all UMD positions supporting premeditated parachuting programs/operations. Additionally, RegAF MFMs will, through the Air Force Personnel Center, man units supporting premeditated parachute programs at Manning Points “E” (CONUS) and “Q” (OCONUS) in order to retain qualified personnel while maximizing unit continuity. **(T-2)**

7.2.2. AFE manpower positions are limited resources earned through applicable Air Force Manpower Standards (AFMS) and/or Air Force Manpower Determinants (AFMD). Commanders with premeditated parachute programs will make every effort to ensure AFE Riggers are not assigned/performing full-time additional duties. AFE Riggers actively supporting premeditated parachute programs will not dual hat the 9ZXXX (Special Warfare Mission Support superintendent) UMD positions in AFSPECWAR units. **(T-2)**

#### 7.3. Training Requirements.

7.3.1. Cargo Parachutes: Only graduates of the US Army Quartermaster Center and School (USAQMC&S) Parachute Rigger Course (PRC) - Phase I, or Fabrication of Aerial Delivery Loads Course (FADLC), Ft. Lee, VA, are authorized to inspect, maintain, repair, pack, conduct in process inspections (IPIs), quality control inspections (QCIs) and certify cargo parachutes on which they are trained and qualified. Personnel who have not completed either PRC Phase I or the FADLC may assist with inspecting and rigging, but all cargo loads must be certified by PRC or FADLC graduates. **(T-1)**

7.3.2. Personnel Parachutes – Static/Line (S/L): Only personnel who have completed the below courses are authorized to inspect, maintain, repair, pack, conduct IPIs and QCIs on USAF-owned S/L parachute systems (main and/or chest mounted reserve) they are trained/certified on. With the exception of the MC-1 and T-10 series parachutes, on-the-job training (OJT)/ “train-the-trainer” is not approved to train and/or certify personnel on S/L parachute assemblies/systems. All AFE personnel must attend formal training listed below to rig USAF-owned S/L main and/or reserve parachute assemblies/systems. **Note:** Use of

Federal Aviation Administration (FAA) and/or Contracted Service Support (CSS) civilian packers will comply with AFI 10-3503 and [paragraph 7.4](#). (T-1)

7.3.2.1. US Army Quartermaster Center and School (USAQMC&S) MC-6/T-11R Static Line Parachute Systems, Ft. Lee, VA.

7.3.2.2. USA USAQMC&S approved MC-6/T-11R New Equipment Training (NET) or Mobile Training Team (MTT) rigging courses.

7.3.2.3. AFECFM-approved commercial/manufacture certification course. Route system-specific commercial/manufacture training requests to the applicable MAJCOM staff for review. MAJCOM staffs will send system-specific commercial/manufacture training requests to the AFECFM for final approval.

7.3.3. Personnel Parachutes – Military Freefall (MFF) Systems: Only personnel who have completed the below courses are authorized to inspect, maintain, repair, pack, conduct IPIs and QCIs on USAF-owned MFF systems they are trained/certified on. OJT and/or “train-the-trainer” is not approved, and all personnel must attend formal training listed below in order to rig USAF-owned MFF systems main and/or reserve parachute assemblies/systems. **Note 1:** Ram Air Static Line qualifications mirror MFF systems qualifications. **Note 2:** Use of FAA certified and/or CSS civilian packers will comply with AFI 10-3503 and [paragraph 7.4](#). (T-1)

7.3.3.1. USAQMC&S MC-4 or RA-1 Ram Air Parachute Systems, Ft. Lee, VA. **Note 1:** RA-1 qualified AFE Riggers are authorized to inspect, maintain, repair, pack, IPI and QCI USAF-owned legacy MFF systems they are certified (i.e., MC-4/MC-5/SOV Ram Air series parachutes). **Note 2:** Graduates from any MC-4 course are not authorized to inspect, maintain, repair, pack, conduct IPIs nor QCI any RA-1 main or reserve parachutes until completion of an approved RA-1 certification course. (T-1)

7.3.3.2. USAQMC&S approved RA-1 New Equipment Training (NET) or Mobile Training Team (MTT) rigging courses. **Note 1:** RA-1 qualified AFE Riggers are authorized to inspect, maintain, repair, pack, IPI and QCI on USAF-owned legacy MFF systems they are certified (i.e., MC-4/MC-5/SOV Ram Air series parachutes). **Note 2:** Graduates from any MC-4 course are not authorized to train, IPI nor QCI any RA-1 main or reserve parachutes until completion of an approved RA-1 certification course. (T-1)

7.3.3.3. MC -4 Ram Air Parachute Systems, 361 TRS, Sheppard AFB, TX. **Note:** Graduates from any MC-4 course are not authorized to train, IPI nor QCI any RA-1 main or reserve parachutes until completion of an approved RA-1 certification course. (T-1)

7.3.3.4. AFECFM-approved commercial/manufacture certification course. Route system-specific commercial/manufacture training requests to the applicable MAJCOM staff for review. MAJCOM staffs will send system-specific commercial/manufacture training requests to the AFECFM for final approval. **Note:** Graduates from any commercial/manufacture course (i.e., Military Javelin/Special Operations Vector [SOV]) are not authorized inspect, maintain, repair, pack, IPI nor QCI any RA-1 main or reserve parachutes until completion of an approved RA-1 certification course.

7.3.4. Personnel Parachutes – Non-Tactical Ram Air Parachute Systems (NTRAPS): Due to a lack of formal NTRAPS/tandem parachute certification courses, OJT is approved to train and

certify personnel on maintaining and rigging of USAF-owned NTRAPS/tandem parachute systems. As a baseline, only AFE Riggers who have completed one of the below courses are authorized to inspect, maintain, repair, pack, IPI and QCI USAF-owned NTRAPS/tandem parachute systems main and/or reserve parachute assemblies/systems. This requirement does not apply to MFF qualified parachutists jumping NTRAPS/tandem parachute systems. MFF qualified parachutists packing NTRAPS/tandem main canopies will comply with requirements outlined in [paragraph 7.8](#). **Note:** Use of FAA type certified civilian packers will comply with AFI 10-3503 and [paragraph 7.4](#). **(T-1)**

7.3.4.1. USAQMC&S RA-1 or MC-4 Ram Air Parachute Systems, Ft. Lee, VA.

7.3.4.2. USAQMC&S approved RA-1 New Equipment Training (NET) or Mobile Training Team (MTT) rigging courses.

7.3.4.3. MC-4 Ram Air Parachute Systems, 361 TRS, Sheppard AFB, TX.

7.3.4.4. System-specific commercial manufacturer training (e.g., Airborne Systems, Complete Parachute Solutions, Butler, etc.).

7.3.4.5. FAA Senior Rigger or Master Rigger certification course(s).

#### 7.3.5. Ancillary Premeditated Parachute Equipment:

7.3.5.1. Only graduates of Cobham Parachutist Oxygen Training courses are authorized to inspect and/or maintain parachutist oxygen masks, bottles, consoles, test stands and/or other oxygen equipment employed during parachute operations. OJT is not authorized to train and/or certify personnel on parachutist oxygen equipment and AFE functions have one (1) year from this publication release date to ensure all personnel inspecting/maintaining parachutist oxygen equipment have completed requisite training. **Note:** This requirement does not apply to Test Parachutist Program (TPP) personnel maintaining aircrew configured equipment used during aircrew profile training and/or test jumps (MBU-20/P, MD-1). TPP personnel will attend Cobham training courses if inspecting/maintaining parachutist oxygen equipment. **(T-2)**

7.3.5.2. On-the-job training (OJT) is authorized to train and certify personnel to inspect and/or maintain ancillary parachuting equipment such as tactical helmets, night vision devices, wrist altimeters, flotation devices, equipment lowering devices, cargo releases, and cargo/T-DUCK harnesses. AFE sections will develop local maintenance manuals for all equipment not covered by TOs, TMs or manufacturers' manuals. Forward locally developed maintenance manuals to applicable MAJCOM staff for uploading to the MAJCOM SharePoint® site. MAJCOMs will coordinate with each other and AFLCMC to determine feasibility of converting locally developed maintenance manuals into standardized and catalogued Work Cards and/or Job Guides. **Note:** AFE Riggers will not rig and/or maintain T-DUCK bundles. **(T-2)**

### 7.4. Federal Aviation Administration (FAA) & Contract Service Support (CSS). This section identifies the qualification standards for AFE Riggers to provide familiarization and training to FAA-certified and CSS personnel.

7.4.1. AFE Riggers providing familiarization/training to FAA-certified and/or CSS personnel will be a certified and current work-center trainer that is proficient on each task that will be trained. **(T-1)**

7.4.2. AFE Riggers providing familiarization/training to FAA-certified and/or CSS personnel will be responsible for providing current and applicable military or manufacturer instructions for each system being supported. Training provided will be IAW applicable manuals and will be provided at a maximum of 30 days prior to the training event. (T-1)

7.4.3. AFE Riggers providing training to FAA-certified and/or CSS will ensure parachute inspection logbooks are signed by the FAA-certified/CSS after the first use of the parachute or removed from the parachute after the first jump. This will ensure that the rigging organization will be easily identified if there is a deficiency found prior to the jump or a malfunction report is generated. (T-2)

7.4.4. All parachutes packed by FAA-certified and/or CSS (outside agency) require 100% QCIs performed/documentated by current and qualified IPI AFE Riggers for that specific system. An IPI sheet will be created and filed IAW local standards that clearly reflects the parachute was packed by FAA/CSS personnel. (T-1)

7.4.5. During training iterations when FAA and/or CSS civilians packers are used, IPI qualified AFE Riggers (Rigger Supervisor) will supervise FAA/CSS civilian packers at a 1:4 ratio (one [1] Rigger Supervisor to every four [4] FAA/CSS civilian packers) and will perform all IPIs and QCIs prior to placing MFF systems parachutes in ready-for-issue (RFI) status. Commanders will ensure IPI requirements for NTRAPS main canopies are outlined in service contracts. Designated Rigger Supervisors will not perform any other duties (Malfunction Officer [MO], Dropzone Control Officer [DZCO], packing, etc.) while supervising FAA/CSS civilian packers. (T-2)

## **7.5. Premeditated Parachute Rigging Currency Requirements.**

7.5.1. AFE functions supporting cargo aerial delivery (AD) operations will create a 24-month cargo rigging proficiency and qualification plan for AD equipment assigned to UTCs. This requirement is only applicable to units tasked with equipment AD UTCs. (T-2)

7.5.2. AFE functions supporting premeditated personnel parachute programs will create a rigging proficiency and qualification plan for all assigned premeditated personnel parachute systems and ancillary personnel AD equipment. (T-2)

7.5.2.1. AFE Riggers who have not inspected, packed, and rigged main and/or reserve S/L, MFF systems, or NTRAPS within the preceding 180 calendar days are considered non-current and are not authorized to inspect, maintain, repair, pack, conduct IPIs or QCIs on USAF-owned personnel S/L, MFF systems or NTRAPS until a personnel evaluation (PE) has been conducted by a qualified 1P071 AFE Rigger. Document PEs on AF Form 803, *Report of Task Evaluations*, or as a journal entry input in Riggers' electronic training records. (T-2)

7.5.2.2. MAJCOMs will develop RASL rigging currency requirements in their supplements to this publication. (T-1)

## **7.6. Premeditated Rigging Task/Personnel Evaluations.**

7.6.1. Designated task certifiers will administer third party task evaluations (TEs) on all newly assigned AFE Riggers for each premeditated parachute system type. Every effort will be made to ensure task certifiers are of higher rank/grade than the AFE Rigger being evaluated.

Document TEs on AF Form 803 or as a journal entry input in AFE Riggers' electronic training records. **(T-2)**

7.6.2. Designated task certifiers will administer recurring personnel evaluations (PE) on all assigned AFE Riggers for each premeditated personnel parachute system type, not to exceed 180 days. Every effort will be made to ensure task certifiers are of higher rank/grade than the AFE Rigger being evaluated. Document recurring PEs on AF Form 803 or as a journal entry input in AFE Riggers' electronic training records. **(T-2)**

## **7.7. In-Process Inspection (IPI) and Quality Control Inspection (QCI) Certification Requirements.**

7.7.1. MAJCOMs may establish additional premeditated cargo and personnel parachute IPI and QCI certification requirements in supplemental guidance to this publication. However, as a baseline standard, all AFE premeditated IPI and QCI Riggers must be: 1) At least a 7-level (1P071); 2) Minimum grade of E-5 (or civilian equivalent); 3) Formally trained IAW applicable requirements listed in this chapter and be current on the parachute system they will perform IPI and/or QCI duties. **(T-2)**

7.7.1.1. To facilitate executing training mission requirements, the first O-6 in the chain of command may temporarily waive, not to exceed 150 days, AFE Riggers' IPI and/or QCI grade and skill level requirements. Waivered AFE IPI and QCI Riggers must: 1) Be recommended by the AFES, AFEFC or Section Chief (AFSPECWAR functions); 2) Have at least six (6) consecutive months of rigging experience, and 3) Have completed at least 50 repacks on the main parachute system for which the AFE Rigger will perform IPIs and QCIs, within the preceding 365 days. Include waived individuals on the IPI/QCI designation letter. **(T-2)**

7.7.1.2. Waivered AFE Riggers are only authorized to IPI and/or QCI main canopies. **(T-2)**

## **7.8. Rigger Supervisors and Parachutist Packing Training.**

7.8.1. An IPI qualified AFE Rigger (Rigger Supervisor) will oversee all daily parachute packing operations. Rigger Supervisors will supervise other AFE Riggers at a 1:6 ratio (one [1] Rigger Supervisor to every six [6] AFE Riggers) and will perform all IPIs and QCIs prior to placing parachutes in Ready-for-Issue (RFI) status. Designated Rigger Supervisors will not perform any other duties (Malfunction Officer [MO], Dropzone Control Officer [DZCO], packing, etc.) while overseeing rigging/packing operations. **(T-3)**

7.8.2. AFE functions will provide Military Freefall (MFF) qualified parachutists MFF systems and NTRAPS main canopy packing training IAW AFI 10-3503. AFE Riggers who train parachutists on main canopy packing procedures will be certified and current on the MFF systems /NTRAPS they are providing training. Document MFF systems /NTRAPS packing training on AF Form 1522, *ARMS Additional Training Accomplishment Report*, and forward to the Squadron Aviation Resource Management (SARM) section. SARM will update applicable database for tracking recurring training IAW established MAJCOM guidance. **(T-1)**



7.8.3. AFE Riggers will ensure MFF parachutists packing MFF systems or NTRAPS main canopies comply with established technical or manufacturer guidance and squadron training/certification programs. **(T-1)**

7.8.4. Rigger Supervisors will supervise MFF qualified parachutists at a 1:4 ratio (one [1] Rigger Supervisor to every four [4] MFF qualified parachutists) and will perform all IPIs and QCIs prior to placing parachutes in RFI status. **(T-2)** Designated Rigger Supervisors will not perform any other duties (Malfunction Officer [MO], Dropzone Control Officer [DZCO], packing, etc.) while overseeing rigging/packing operations. **(T-3)**

7.8.5. MFF parachutists will only pack freefall-configured main MFF systems canopies they will be jumping, and only when a waiver has been issued IAW AFI 10-3503. This requirement does not apply to MFF qualified AFE Riggers. **Note:** MFF parachutists are not authorized to pack RASL configured MFF systems main canopies. **(T-1)**

7.8.6. Qualified MFF parachutists are authorized to pack the main NTRAPS and main tandem canopies they will be jumping IAW AFI 10-3503. Waivers are not required for packing main NTRAPS or main tandem MFF systems canopies. All AFE Rigger-packed main tandem canopies will receive IPIs. Commanders will publish IPI requirements for parachutists packing their own NTRAPS and tandem main canopies. **(T-2)**

7.8.6.1. Each tandem passenger harness will be assigned/married to a designated tandem system and inspected on the same periodic inspection interval(s) as the harness/container. Inspections will be documented in AFERMS and associated record logs. Local inspection guidance will be established for inspecting the tandem passenger harness if guidance is not provided in the manufacturer manual. **(T-2)**

## **7.9. AFE Malfunction Officers (MOs).**

7.9.1. AFE Malfunction Officers (MOs) must meet requirements outlined in AFJ 13-210(I), *Joint Airdrop Inspection Records, Malfunctions/Incident Investigations and Activity Reporting*. Additionally, AFE MOs will receive initial and annual refresher training IAW paragraphs **7.9.2 through 7.9.2.3** Document initial and recurring annual refresher training as journal entries in MOs' electronic training records. **(T-1)**

7.9.2. The following items must be completed and documented in order to satisfy initial and annual refresher MO training requirements: **(T-1)**

7.9.2.1. Review of MO training slides provided on the USAF Loadmaster and Rigger Aerial Delivery Operations (LARADO) website located at: <https://usaf.dps.mil/sites/LARADO>.

7.9.2.2. Completion of the Joint Riggers Malfunction Course computer based training located at: [https://jkodirect.jten.mil/html/COI.xhtml?course\\_prefix=J3T&course\\_number=A-US1400](https://jkodirect.jten.mil/html/COI.xhtml?course_prefix=J3T&course_number=A-US1400).

7.9.2.3. Local training and hands-on evaluations that include: 1) Familiarization with AFI 10-3503, Chapter 5 *Reporting Instructions*, and other applicable regulations/guidance; 2) Drop zone (DZ) operations; 3) Hands-on malfunction kit/equipment familiarization; 4) Practical scenarios utilizing equipment, requesting transportation and communication

support; 5) Contact information for emergency services/support agencies such as medical, local law enforcement, Command Post, and Range Control. **(T-1)**

#### **7.10. AFE Malfunction/Incident Reporting Requirements.**

7.10.1. In an effort to enhance parachutist safety while bolstering rigging cross-tell, AFE functions supporting premeditated parachute operations will forward, through the AFES or designated representative, completed DD Form 1748-2 *Joint Airdrop Malfunction Report (Personnel-Cargo)* and *AFE Parachute Malfunction Summary*, to MAJCOM AFE staff within five (5) duty days from malfunction(s). These forms do not replace mandatory malfunction reporting requirements and/or procedures outlined in AFJ 13-210(I). **(T-2)**

7.10.2. MAJCOM AFE staffs will notify sister MAJCOMs of malfunctions and upload sanitized forms to the *AFE Premeditated Parachute Malfunction/Incident Crosstell* folder on the HQ USAF AFE SharePoint® site. This will allow other AFE functions supporting premeditated parachute programs to garner pertinent information that could aid in determining potential equipment/material defects, rigging deficiencies and to bolster AFE training programs. **(T-2)**

7.10.3. AFE sections will send Cybernetic Parachute Release (CYPRES) and/or Vigil automatic activation devices (AADs) to applicable servicing facilities for functional testing within five (5) duty days of non-fatal AAD activations. Submit AAD functional test reports to applicable MAJCOM AFE staff for uploading to the *AFE Premeditated Parachute Malfunction/Incident Crosstell* folder. **(T-2)**

#### **7.11. Storage Requirements.**

7.11.1. Packed and ready-for-issue (RFI) premeditated cargo and personnel parachutes must be stored and secured in a manner inaccessible to personnel not directly involved in parachute rigging, which includes assembly inspection, maintenance and/or packing. Parachutes in RFI status will be secured through two layers of security; the first layer is the AFE facility itself, with the second layer being the RFI parachute storage room(s) or approved container(s), so long as the RFI container(s) have the ability to be locked. **(T-2)**

7.11.2. Extreme care must be taken to physically segregate RFI equipment to the greatest extent possible. Parachutes pending maintenance or repack must be segregated from RFI parachutes. Parachute assemblies awaiting maintenance, repack, or time-change components will be stored with main or reserve ripcord handles removed, as applicable, and segregated from RFI equipment. All other requirements, to include access control and physical security procedures will be strictly enforced. **(T-2)**

JAMES C. SLIFE, Lt Gen, USAF  
Deputy Chief of Staff, Operations

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

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### ***Adopted Forms***

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AF Form 55, *Employee Safety and Health Record*

AF Form 457, *USAF Hazard Report*

DAF Form 679, *Air Force Publication Compliance Item Waiver Request Approval*

DAF Form 847, *Recommendation for Change of Publication*

AF Form 1522, *ARMS Additional Training Accomplishment Report*

AF Form 2420, *Quality Control Inspection Summary*

AFTO Form 46, *Prepositioned Aircrew Flight Equipment*

AFTO Form 392, *Parachute Repack Inspection and Component Record*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AETC Form 281, *Instructional Evaluation*

AETC Form 620, *Academic Instructor Monitoring Checklist*

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

**ACBRN**—Aircrew chemical, biological, radiological, nuclear

**ACBRNE**—Aircrew chemical, biological, radiological, nuclear equipment

**ACCA**—Aircrew contamination control area

**ACCS**—Aircrew contamination control station

**AF**—Air Force

**AFE**—Aircrew flight equipment

**AFECFM**—Aircrew Flight Equipment Career Field Manager

**AFECT**—Aircrew flight equipment continuation training

**AFECTI**—Aircrew flight equipment continuation training instructor

**AFEFC**—Aircrew flight equipment flight chief

**AFELT**—Aircrew flight equipment lead trainer

**AFERMS**—Aircrew Flight Equipment Record Management System

**AFEO**—Aircrew flight equipment officer (Rated)

**AFEPMC**—Aircrew Flight Equipment Program Managers Course

**AFES**—Aircrew flight equipment superintendent

**AFETT**—Aircrew flight equipment technician training

**AFFTC**—Air Force Flight Test Center

**AFI**—Air Force instruction

**AFMAN**—Air Force manual

**AFMAN 11-2 MDS**—Air Force Manual 11-2 Mission Design Series

**AFMC**—Air Force Materiel Command

**AFMLP**—Air Force master lesson plan

**AFPD**—Air Force policy directive

**AFSPECWAR**—Air Force Special Warfare

**AFRC**—Air Force Reserve Command

**AFSC**—Air Force specialty code  
**ALC**—Air Logistics Complex  
**ANG**—Air National Guard  
**AP**—Aircrew Performance  
**APEC**—Aircrew Performance Executive Council  
**APP**—Aircrew Performance Program  
**APS**—Aircrew Performance Systems  
**APSP**—Aircrew Performance Strategic Plan  
**APWG**—Aircrew Performance Working Group  
**AQL**—Acceptable quality levels  
**ARC**—Air Reserve Component (AFRC and NGB)  
**A3**—Director of Operations  
**CBRN**—Chemical, biological, radiological, and nuclear  
**CCP**—Command control points  
**CCIP**—Wing Commander's Inspection Program  
**CFETP**—Career field education and training plan  
**COR**—Contracting Officer Representative  
**COTS**—Commercial-off-the-shelf  
**COTS/NDI**—Commercial-off-the-shelf/non-developmental item  
**CPFH**—Cost per flying hour  
**CTK**—Composite tool kit  
**DAFMAN**—Department of the Air Force manual  
**DoD**—Department of Defense  
**DPAS**—Defense Property Accountability System  
**DPAS-FSM**—**DPAS**—Force System Management  
**DPAS-PA**—**DPAS**—Property Accountability  
**DRU**—Direct reporting units  
**DSV**—Detected safety violation  
**DZCO**—Dropzone Control Officer  
**EPT**—Emergency procedures trainer  
**ETIMS**—Enhanced Technical Information Management System  
**FAM**—Functional area manager

**FM**—Functional manager  
**FOA**—Field operating agency  
**FTUO**—For training use only  
**HAF**—Headquarters Air Force  
**HARM**—Host Aviation Resource Management  
**HHQ**—Higher headquarters  
**HQ**—Headquarters  
**ID**—Identification  
**IAW**—In accordance with  
**IPI**—In-process-inspection  
**JACKS**—Acquisition Chemical Biological Radiological Nuclear Knowledge System  
**LC**—Lead command  
**LOGDET**—Logistics detail  
**MAF**—Mobility Air Forces  
**MAJCOM**—Major command  
**MAJCOM/CC**—MAJCOM commander  
**MDS**—Mission design series  
**MFF**—Military freefall  
**MFM**—MAJCOM functional manager  
**MICT**—Management Internal Control Toolset  
**MO**—Malfunction officer  
**MTI**—Mission termination inspection  
**MTL**—Master task listing  
**MTP**—Master training plan  
**MXG**—Maintenance group  
**MXG/CC**—Maintenance group commander  
**N/A**—Not applicable  
**NCO**—Noncommissioned officer  
**NCOIC**—Noncommissioned officer in-charge  
**NDI**—Non-developmental items  
**NGB**—National Guard Bureau  
**NSN**—National stock number



**NTRAPS**—Non-tactical ram air parachute system  
**NVD**—Night Vision Device  
**OG**—Operations Group  
**OG/CC**—Operations Group commander  
**O&M**—Operations and Maintenance  
**OI**—Operating instruction  
**OJT**—On-the-job training  
**OPLAN**—Operations plan  
**OPR**—Office of primary responsibility  
**OSS**—Operations Support Squadron  
**OSS/CC**—Operations Support Squadron commander  
**PE**—Personnel evaluations  
**POC**—Point of contact  
**QA**—Quality Assurance  
**QASP**—Quality assurance surveillance plan  
**QC**—Quality control  
**QCI**—Quality control inspection  
**QI**—Quality Inspector  
**RC**—Recommended change  
**RegAF**—Regular Air Force  
**SA**—Self-assessment  
**SA/LW**—Small arms/light weapons  
**SAC**—Self-assessment checklist  
**SARM**—Squadron Aviation Resource Management  
**SAV**—Staff assistance visits  
**SDS**—Safety data sheets  
**SME**—Subject matter expert  
**SMSgt**—Senior master sergeant  
**SOW**—Statement of work  
**SPINS**—Special instructions (  
**SPO**—Systems program office  
**SQ/CC**—Squadron commander

**SSgt**—Staff sergeant  
**TCTO**—Time compliance technical order  
**TDV**—Technical data violation  
**TDY**—Temporary duty  
**TE**—Task evaluation  
**TSgt**—Technical sergeant  
**TFIA**—Total Force Integration Association  
**TMDE**—Test, measurement, and diagnostic equipment  
**TO**—Technical order  
**UCR**—Unsatisfactory condition reports  
**UEI**—Unit effectiveness inspections  
**UMD**—Unit manpower document  
**USAF**—United States Air Force  
**UTC**—Unit type code  
**UTM**—Unit training manager  
**WIT**—Wing Inspection Team

*Office Symbols*

**ACC/A3TO**—Air Combat Command, Director of Operations, Training Division, Operations Support Branch  
**ACC/TRSS/ATD**—Air Combat Command, Training Support Squadron, Detachment 9  
**AF/SE**—Air Force Chief of Safety  
**AF/A3S**—Air Force Specialized Air and Ground Operations Division  
**AF/A3T**—Air Force Deputy Chief of Staff, Operations, Director of Training and Readiness  
**AF/A3TH**—Air Force Deputy Chief of Staff, Operations, Director of Training and Readiness, Aircrew Performance Division  
**AFCAIG/CPFH**—Air Force Cost Analysis Improvement Group/Cost Per Flying Hour  
**AFCEC/CXR**—Air Force Civil Engineer Center, Emergency Management Division  
**AFGSC/A3OL**—Air Force Global Strike Command, Director of Operations, Aircrew Performance Branch  
**AFMC/A4F**—Air Force Materiel Command, Director of Logistics, Product Support Division  
**AFMC/A3V**—Air Force Materiel Command, Director of Air, Space, and Cyberspace, Flight Operations & Standardization and Evaluation Division  
**AFMC/SE**—Air Force Materiel Command, Director of Safety

**AFRC/A3RF**—Air Force Reserve Command, Director of Operations, Resource and Requirements Division, Aircrew Flight Equipment Branch

**AFSEC/SEF**—Air Force Safety Center, Aviation Safety Division

**AFMRA/SGP**—Air Force Medical Readiness Agency, Chief of Aerospace Medicine

**AFLCMC/WNU**—Air Force Life Cycle Management Center, Human Systems Division

**AMC/A3TL**—Air Force Mobility Command, Director of Operations, Aircrew Tactics & Training Division, Aircrew Flight Equipment

**DAF/SG**—Department of the Air Force, Surgeon General

**SAF/AQP**—Secretary of the Air Force, Acquisitions, Director of Global Power

**SAF/IG**—Secretary of the Air Force, Inspector General

### *Terms*

**100% Task Coverage**—Minimum number of technicians within a work center that are required to be qualified on a given task in order to meet mission requirements.

**Acceptable Quality Levels (AQL)**—An AQL denotes the maximum allowable number of minor findings that a process or product may be charged for the task to be rated "Pass".

**Air Force Special Warfare (AFSPECWAR)**—The Department of the Air Force's offensive ground force that specializes in air-ground-space-cyber integration in hostile, denied, and politically sensitive environments to achieve air, space, and cyber dominance. AFSPECWAR Airmen comprise the Guardian Angel, Tactical Air Control Party, and Special Tactics weapon systems. These Airmen are employed to: (1) gain global access; (2) provide precision strike; and (3) conduct personnel recovery across the spectrum of conflict and the multi-domain battlefield.

**Aircrew**—The total complement of rated (pilots, navigators, combat systems officers, air battle managers, and flight surgeons), career enlisted aviators (1AXXX and 1UXXX AFSC), and nonrated aircrew (K-, Q-, or X-prefixed AFSC) personnel responsible for the safe ground and flight operation of the aircraft and onboard systems, or for airborne duties essential to accomplishment of the aircraft's mission. Includes members in initial formal training for immediate assignment to an authorized operational flying position.

**Aircrew Contamination Control Area (ACCA)**—A self-sustaining, aircrew only Chemical/Biological mitigation control area that minimizes cross contamination to aircrew and is staffed by certified AFE technicians.

**Aircrew Contamination Control Station (ACCS)**—A self-sustaining, aircrew only decontamination area removes radiological particulates from aircrew and is staffed by certified AFE technicians.

**Aeromedical Evacuation (AE)**—Movement of patients under medical supervision between medical treatment facilities (MTF) by fixed-wing aircraft by qualified AECMs.

**Aeromedical Evacuation Crew Members (AECM)**—Qualified Flight Nurses (FN), AE Technicians (AET), and unqualified student trainees under the direct supervision of a qualified instructor or FN, performing AE duties.

**Aircrew Eye/Respiratory Protection (AERP)**—AERP is designed to protect the crewmember head, neck, face, eyes, and respiratory tract in a CBRN environment. This equipment is designed to provide protection may impose operational or physiological burdens, degrading mission capability, or combat effectiveness.

**Aircrew Flight Equipment**—Flight equipment encompasses all equipment that was formerly known as aircrew life support equipment and is part of the 412A life support system.

**Contracting Officer Representative (COR)**—The AFE COR is synonymous with AFEO or AFES when directly responsible for the oversight of AFE sections. This term is not to be misrepresented by applying it to any other CORs aligned outside the scope of AFE section management (e.g., Mission Support Group functions, or other contract managed workcenters).

**D-Bag**—Full complement of ACBRN equipment BOI. Includes the contents of the D-1 bag, plus any remaining BOI items.

**D-1 Bag**—One complete ACBRN equipment carried by aircrew when deploying to chemical threat environment.

**Detected Safety Violation (DSV)**—A DSV is an unsafe act by an individual. The inspector must stop the unsafe act immediately. Do not document a separate DSV on an individual undergoing a PE since the unsafe act automatically results in a "Fail" rating on the PE. Use the word "Safety" when a safety violation is committed during a PE.

**In-Process Inspection (IPI)**—An additional inspection or verification step at a critical point in the installation, assembly, or reassembly of a system, subsystem, or component. These inspections are TO-directed and are accomplished by qualified technicians designated by the unit CC via appointment letter, or as determined by applicable MAJCOM/FOA. The term IPI is the same as Critical Point Inspection and/or Rigger Check as found in various service manuals and will be the only term used on all inspection sheets.

**Laser**—An acronym for Light Amplification by Stimulated Emission of Radiation. Any device that can be made to produce or amplify electromagnetic radiation in the x-ray, UV, visible, and infrared or other portions of the spectrum by the process of controlled stimulated emission of photons.

**Locally Designed Tool**—A tool designed, manufactured, or modified without approved guidance from an official source (e.g., TO, TCTO, COTS manual).

**Logistics Detail (LOGDET)**—The LOGDET defines standard passenger and equipment movement requirements for each UTC. Equipment detail is provided at the NSN level. Lists all material in an UTC, prioritizes increment movement, provides increment characteristics, and is the standard equipment listing for planning.

**Major Discrepancy/Finding**—A major discrepancy is defined as a condition that would endanger personnel, jeopardize equipment or system reliability, impact safety of flight or warrant discontinuing the process or equipment inspection. Any major discrepancy will result in an automatic inspection failure. All discrepancies will be documented for trends.

**Minor Discrepancy/Finding**—A minor discrepancy is defined as an unsatisfactory condition that requires repair or correction, but does not endanger personnel, impact safety of flight, jeopardize equipment reliability or warrant discontinuing a process or equipment operation. A minor discrepancy is one that will not affect the operation of the equipment but prevents the equipment

from being 100 percent compliant with current directives. All discrepancies will be documented for trends.

**Newly Assigned**—A technician /NCOIC new to the unit by way of PCS, new hire or changing MDS, etc.

**Nomex®**—Nomex® fabric is a high-temperature resistant and inherently flame-retardant synthetic fabric with no-hot-melting point or drip characteristics. The fabric is light in weight, will not support combustion, but will begin to char at 700° to 800° F. The fabric has good abrasion resistance similar to nylon and is nonabsorbent like nylon and other synthetic fabrics.

**Operation Plan (OPLAN) (DoD)**—Any plan, except for the Single Integrated Operational Plan (SIOP), for the conduct of military operations. Plans are prepared by combatant CC's in response to requirements established by the Chairman of the Joint Chiefs of Staff and by CC's of subordinate commands in response to requirements tasked by the establishing unified CC. An OPLAN identifies the forces and supplies required to execute the CINC's Strategic Concept and a movement schedule of these resources to the theater of operations. The forces and supplies are identified in Time-Phased Force Deployment Data files. OPLANs will include all phases of the tasked operation. The plan is prepared with the appropriate annexes, appendixes, and files as described in the Joint Operation Planning and Execution System manuals containing planning policies, procedures, and formats. OPLANs are prepared either in a complete format OPLAN or as a Concept Plan (CONPLAN). The CONPLAN can be published with or without a file. An OPLAN for the conduct of joint operations that can be used as a basis for development of an Operation Order (OPORD).

**Passenger (PAX)**—Individual aboard aircraft for the purpose of transportation.

**Pilot Unit**—Unit designated by the MAJCOM functional manager (MFM) to handle LOGDET management responsibilities for an UTC. Pilot units are listed in the header record of each UTC and LOGDET.

**Personnel Evaluation (PE)**—A PE is an over-the-shoulder (direct or indirect) evaluation of a maintenance action or inspection by an individual or team as part of the Quality Assurance Program or SA program. Use PEs to evaluate job proficiency, degree of training and compliance with TOs. A PE may consist of a full or partial evaluation of the maintenance action or inspection being performed.

**Task Evaluation (TE)**—A TE is an over-the-shoulder direct evaluation of a maintenance action or inspection, from start to finish, by an individual or team who is in upgrade or qualification training and NOT currently task qualified on the task(s). TEs are also utilized during initial upgrade training to ensure the AFE technician is at the CFETP defined "GO" level and can be task qualified in their myTraining records.

**Technical Data Violation (TDV)**—A TDV is an observation of any person performing maintenance without the proper technical data available, available but not in use or not following the correct sequence of steps (if directed). The technician must have knowledge of all general directives associated with the job prior to performing the task. However, those directives applicable to the task being performed must be present at the job site. Do not document a separate TDV on an individual undergoing a PE, since failure to use technical data automatically results in a "Fail" rating.

**Theater (DoD)**—The geographical area outside the continental United States for which a CC of a combatant command has been assigned responsibility.

**Third-Party Certification**—An evaluation of completed training conducted by the task certifier.

**Two-Person Concept**—Is designed and used throughout all IPIs to ensure the IPI is conducted by a different person other than the item inspector. The two-person concept ensures an additional set of eyes validate the critical point in the inspection process.

**Unit Manpower Document (UMD)**—A detailed staffing list reflecting the distribution of staffing allocations into a finite structure of authorizations (by work center).

**Unit Type Code (UTC)**—A five-character, alphanumeric code that uniquely identifies each type unit of the Armed Forces.

**Unsatisfactory Condition Reports (UCR)**—A UCR is an unsafe or unsatisfactory condition, other than a DSV, chargeable to the work center supervisor. UCRs will be documented even when it is not possible to determine who created the condition.