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OF THE AIR FORCE**

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**AIRCREW FLIGHT EQUIPMENT
(AFE) PROGRAM**

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This instruction implements Air Force Policy Directive (AFPD) 11-3, *Life Support* (to be renamed *Aircrew Flight Equipment*), and establishes AFE objectives, responsibilities, administrative, deployment and contingency operations, training, clothing, and equipment requirements for the new Aircrew Flight Equipment career field (former Aircrew Life Support and Survival Equipment). Major Commands (MAJCOM) and the Air National Guard (ANG) must comply with the requirements for Aircrew Flight Equipment in this publication and applicable Air Force technical orders. This publication applies to all MAJCOMs and the ANG when published in the ANGIND 2. Aircrew Flight Equipment Officers or MAJCOM Functional Managers (FM) for each MAJCOM or Numbered Air Force (NAF), as well as Field Operating Agencies (FOA) must send one copy of MAJCOM supplements to this publication to HQ USAF/A3O-AT, 1480 Air Force Pentagon, Washington DC 20330-1480. Send comments and suggested improvements to this instruction on an AF IMT 847, *Recommendation for Change of Publication*, through appropriate channels, IAW AFI 33-360, Volume 1, *The Air Force Content Management Program—Publications*, to HQ USAF/A3O-AT. Intervening levels will evaluate

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SUMMARY OF CHANGES

This is a major revision and must be reviewed entirely. It includes initial guidance for the new Aircrew Flight Equipment (AFE) career field (AFSC 1P0X1), which includes and merges the former Aircrew Life Support (AFSC 1T1X1) and Survival Equipment (AFSC 2A7X4) career fields. It modifies MAJCOM and other agency responsibilities, and updates office symbols. Life Support Officers (LSO) are referred to as Flight Equipment Officers (FEO). Previous guidance relating to Mobility, CBRN, and contingency operations has been moved to AFI 11-301, Volume 3, *Aircrew Flight Equipment (AFE) Combat Operations*, (forthcoming).

Program Guidance Letter (PGL), Aircrew Life Support and Survival Equipment Career Field Merger, dated 12 March 2008 implemented the Chief of Staff of the Air Force direction to merge these two career fields, and created a new AFE (AFSC 1P0X1) career field with all functions, manpower, and personnel organizationally aligned to the Operations Support Squadron (OSS) under the Operations Group (OG) to include all military, civil service, and

contractor equivalent. A copy of this PGL can be obtained from HQ USAF/A3O-AT (Operational Training Division).

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Chapter 1

OVERVIEW

1.1. Mission. Provide USAF aircrew safe and effective aircrew flight equipment and programs to increase aircrew 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 their aircraft during an emergency. Provide aircrew protection from effects of Chemical, Biological, Radiological, and Nuclear (CBRN) weapons.

1.2. Program Objectives:

1.2.1. Increase combat capability of the total weapon system by enhancing and maximizing the performance and survivability of the aircrew.

1.2.2. Reduce injuries and increase survival rates by providing aircrew and passengers with the best equipment available through new technologies, system training, and quality system maintenance.

1.2.3. Identify requirements for modernization and new equipment by analyzing: customer-validated operational requirements, operational deficiencies, USAF suggestions and recommendations, Air Force Technical Order (TO) improvement reports, aircraft mishap investigation and safety report recommendations, and joint developmental programs from other Department of Defense (DoD) agencies.

1.2.4. Train aircrew and passengers to use their Aircrew Flight Equipment (AFE) in a manner that reinforces recall during emergency situations. Training should be accomplished using training equipment that mirrors operational equipment and realistic scenarios, in which aircrew and passengers are likely to encounter. Realistic training will ensure aircrew and passengers have confidence in their equipment and increase their ability to use it.

1.2.5. Train and qualify AFE personnel (Air Force Specialty Code [AFSC] 1P0X1) to maintain AFE in optimum condition and to conduct Aircrew Flight Equipment Continuation Training (AFECT). Provide units the suitable resources to perform optimal equipment maintenance.

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

1.3. Supplements and Waivers:

1.3.1. MAJCOM and FOA functional managers must coordinate and forward a published copy of their supplement to this publication to HQ USAF/A3O-AT, 1480 Air Force Pentagon, Washington DC 20330-1480.

1.3.2. MAJCOMs, ANG, Direct Report Units (DRU), FOAs, and wings may request waivers as well as deviations to requirements of this instruction when unique or unusual circumstances affect the unit's ability to implement stated policy or procedure. MAJCOMs, ANG, and DRUs (e.g., /A3T or higher) will forward the request by letter, e-mail or message to HQ USAF/A3O-AT explaining why a waiver is needed and describing the specific requirement that is creating the problem. Wings and FOAs will process waivers through

their respective MAJCOM or ANG authority for submission to HQ USAF/A3O-AT. HQ USAF/A3O-A is the waiver authority for this instruction. Wings (Operations Group Commander or higher) and FOAs (Operations Group Commander or equivalent) may request waivers to MAJCOM supplements by submitting their waiver request to the specific MAJCOM. Air Force Reserve Command (AFRC) units will forward waiver requests through NAF channels to HQ AFRC.

1.3.2.1. If approved, waivers remain in effect for the amount of time needed to correct the problem causing the waiver requirement, not to exceed one year or upon revision of this instruction. The approving agency may cancel the waiver in writing if issues change the basic intent or requirement for the waiver.

1.3.2.1.1. **(Added-PACAF)** Forward requests via e-mail through the operations group commander (or equivalent) to HQ PACAF/A3TC describing the specific requirement that is creating the problem and explaining why a waiver is required. Not applicable to AFRC/ANG units.

1.3.3. MAJCOMs will supplement this instruction for their unique programs within 180 days of the publication date of this instruction IAW AFI 33-360, *Publications and Forms Management*.

1.3.3.1. **(Added-PACAF)** PACAF units may further supplement this instruction for their unique programs within 180 days of the publication of this supplement.

1.4. Communications:

1.4.1. All subordinate units will ensure AFE matters, including requests for waivers, are channeled through their group AFE staff.

1.4.2. At the wing level, direct communication with HQ USAF/A3O-AT, Air Logistics Centers (ALC), Systems Program Offices (SPO), or Depots offices is not authorized without prior approval and coordination with respective MAJCOM, NAF, or ANG FM. If immediate contact is required in an emergency situation, advise respective MAJCOM FMs as soon as possible.

1.4.2.1. **(Added-PACAF)** Flight Equipment Officers (FEO) and AFE Superintendents (AFES) are authorized contact with HQ PACAF/A3TC. AFRC units will work through their respective NAF and HQ AFRC.

1.4.3. Do not request waivers by telephone. Use letter, e-mail or message format to request waivers depending on urgency.

1.4.4. Keep messages to a minimum. 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.

1.4.5. Use written communications to explain actions or request assistance from a higher echelon. Forward the request to the next HHQs for action and do not bypass next echelon.

1.4.6. E-mail Procedures. Units are encouraged to use e-mail to facilitate correspondence. E-mails shall be encrypted when they contain For Official Use Only (FOUO) information; Privacy Act Information; Personally Identifiable Information (PII); individually identifiable

health information, DoD payroll, finance, logistics, personnel management, proprietary, and foreign government information; contract data; export controlled technical data or information; and operational information regarding status, readiness, location, or operational use of forces or equipment. Email encryption should be used to protect only the above types of information, and the number of e-mail recipients should be kept to a minimum.

1.4.6.1. An organizational and/or individual SIPR account is required for the AFE superintendent to respond to classified correspondence.

1.4.6.2. Digital signatures shall be used whenever it is necessary for the recipient to be assured of the sender's identity, have confidence the message has not been modified, or when non-repudiation is required. Examples include formal direction to a government employee or contractor, messages that stipulate an Air Force official position on any matter, and messages that commit to, authorize, or deny the use of funds in some manner.

1.4.7. Units will periodically check their respective MAJCOM web page to ensure receipt of all applicable information. Additional information can be found on the USAF AFE Community of Practice (CoP) at: <https://wwwd.my.af.mil/afknprod/ASPs/CoP/OpenCoP.asp?Filter=OO-OP-AF-61>.

1.4.7.1. **(Added-PACAF)** The PACAF CoP can be accessed through the following link: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-OP-PC-45>

1.4.7.2. **(Added-PACAF)** Units working with personnel parachute systems and programs will check the AF Personnel Parachute Program CoP to ensure receipt of all applicable information, messages, and approved for use list regarding their unit specific parachute system. This CoP can be accessed through the following link (individuals must request membership prior to accessing this CoP): <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-TO-00-32>

Chapter 2

RESPONSIBILITIES

2.1. Shared Responsibilities. MAJCOMs, DRUs, FOA Director of Operations (A3), NGB/A3OS, and comparable positions in the Numbered Air Forces (NAF), centers, and subordinate units, share responsibilities for execution of AFE policy.

2.2. HQ USAF/A3O (Director of Operations) through HQ USAF/A3O-AT (Operational Training Division):

2.2.1. Is responsible for the Air Force AFE program.

2.2.1.1. The Chief, Operational Training Division (HQ USAF/A3O-AT) oversees the entire AFE program.

2.2.1.2. An active duty AFE functional manager (1P000) will be assigned to manage AFE matters and serve as the Air Force Career Field Manager (AFCFM) for AFSC 1P0X1.

2.2.1.3. Annually, or as required, convenes the Aircrew Flight Equipment Executive Committee (AFEEC) meeting. Membership includes the AFE AFCFM, AFE MAJCOM and ANG Functional Managers, and CMSgts (1P000). The intent of the working group is to communicate, provide course of action, and resolve operations and training issues (aircrew and technician) regarding the Air Force AFE program.

2.2.2. Coordinates on Air Staff, MAJCOM, ANG, DRU, and FOA operations and training issues (aircrew and technician).

2.2.3. Coordinates with other Air Staff offices that affect AFE programs; aircrew chemical defense equipment and procedures; Research and Development (R&D) of AFE; logistics; egress; and Counter-Chemical, Biological, Radiological, Nuclear (C-CBRN) defense doctrine, policy, training; and tactics, techniques, and procedures.

2.2.4. Hosts an annual Air Staff working group with representatives involved with AFE and aircrew performance responsibilities. Membership should include representatives from HQ USAF/A3O-AT (Operational Training Division), HQ USAF/A3O-AS, (Special Operations Division), HQ USAF/A4LM (Egress), AFMOA/SGOA (Aerospace Medicine), SAF/AQPC (Aircrew Flight Equipment PEM), HQ USAF/A7CX (CE Readiness), HQ USAF/A4LE (Logistics), HQ USAF/A4LM (Air Transportation), HQ AFSC/SEH (Safety), and aircrew representation. The intent of the working group is to build a network of contacts, keep lines of communication open, and resolve Aircrew Performance issues that are cross functional in nature. Similar working group meetings will be held annually at MAJCOM and ANG, and unit levels.

2.2.5. Advises on aircrew performance issues.

2.2.6. Briefs Air Staff directorates and other officials or organizations on AFE and training issues.

2.2.7. Serves on Air Force, joint inter-agency, and industry groups, boards, task forces, committees, and conferences dealing with aircrew performance operational issues.

2.2.8. Assists Air Education and Training Command (AETC) in formulating, implementing, and evaluating formal training programs for AFE personnel.

2.2.9. Biennially convenes a World-Wide Aircrew Flight Equipment Workshop.

2.2.10. Participates in MAJCOM and ANG AFE conferences, as needed.

2.2.11. Manages the USAF Outstanding AFE of the Year Awards Program, IAW AFI 36-2807, *Headquarters United States Air Force Deputy Chief of Staff Air and Space Operations Annual Awards Program*.

2.2.12. Monitors:

2.2.12.1. MAJCOM, ANG, and FOA aircrew performance programs.

2.2.12.2. Command-level technical concerns affecting aircrew performance systems and subsystems, manpower resources, and equipment and intervenes as required.

2.2.12.3. Commercial Off-The-Shelf (COTS) or Non-Developmental Items (NDI) that Air Force aircraft and aircrews might use as AFE.

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

2.2.12.5. Development of Capabilities Decision Documents (CDD) IAW the Paperwork Reduction Act of 1974, Amended in 1996, and development of Initial Capabilities Documents (ICD).

2.2.12.6. Aircraft mishap investigation and safety reports in which aircrews have used AFE items or systems.

2.2.12.7. Fielding new AFE. Works with office of primary responsibility (OPR) and the AFMC AFE System Manager to ensure they publish and distribute technical publications and training equipment before new AFE is fielded. Ensures technical schools have assets to support new training requirements.

2.2.12.8. The Undergraduate Program Guidance Letter (UPGL) and shortfalls with formal AFE and survival training program quotas.

2.2.13. Annually, or as required, convenes the Aircrew Performance Executive Council (APEC) meeting.

2.2.14. Provides input to the Master Configuration List (MCL) for all aircraft-installed and aircrew issued aircrew performance related systems. The MCL will provide a list of all authorized subsystems and equipment in the Air Force aircrew performance inventory.

2.3. Aircrew Performance Executive Council (APEC):

2.3.1. The APEC is an O-6 level oversight and steering group body that provides direction and advocacy for all aircrew performance programs. The purpose of the APEC is to prioritize and provide Air Force direction to resource sponsors and the Single Managers for aircrew performance systems acquisition (77 AESG/CC); and sustainment (642 CBSG/CC).

2.3.2. The objective is to advocate Air Force sponsored aircrew performance systems research and development funding priorities, equipment procurement funding priorities, and

aircrew performance systems related Integrated Process Team (IPT) recommendations with user needs.

2.3.3. The APEC will operate under a charter approved by HQ USAF/A3O, and will meet annually to receive updates on aircrew performance systems 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, the ANG, and the Air Staff.

2.3.4. HQ USAF/A3O-AT and 77 AESG/CC co-chair the APEC. The host (77 AESG/CC) will arrange for a suitable conference site, announce the meeting, and via message provide an agenda and specific details related to the meeting.

2.3.5. A sub-group of the APEC is the Aircrew Performance Working Group (APWG). The APWG will present updated roadmaps, acquisition status, and career field issues to the APEC.

2.3.5.1. The APWG will operate under a charter approved by HQ USAF/A3O-AT, and will meet at least 90 days prior to the APEC. Additional meetings whether in-person or via telecom will be scheduled at the discretion of the chairmen.

2.4. HQ USAF/SE (Chief of Safety). Through the Headquarters Air Force Safety Center, Human Factors Division (HQ AFSC/SEH); this office:

2.4.1. Provides statistical data, analysis, and recommendations on all aircraft mishap investigations or incidents involving AFE or training.

2.4.1.1. Provides this information to MAJCOMs to improve their continuation training lesson plans.

2.4.2. Monitors the Air Force Aircrew Performance program to ensure aircrews maintain safety standards.

2.4.3. Provides technical assistance on request to aircraft mishap investigation boards.

2.4.4. Serves on the APEC.

2.4.5. Attends the World-Wide AFE Workshop and MAJCOM meetings. Briefs attendees on aircrew use of AFE, their performance during aircraft mishap investigations, and general safety concerns.

2.4.6. Attends Air Force, joint agency, and industry meetings, boards, task forces, and conferences that deal with AFE, as required.

2.4.7. Provides a representative to the Air Staff APWG.

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

2.5.1. Monitors the development and acquisition of new AFE.

2.5.2. Assigns an officer to serve on 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 aircrew performance System Development and Demonstration (SDD) programs aimed to satisfy validated user requirements.

2.5.4. Attends the World Wide AFE Workshop and briefs attendees on AFE research, development, and acquisition issues.

2.5.5. Provides a representative to the Air Staff and APWG.

2.6. HQ USAF/SG (Surgeon General). Through the Air Force Medical Support Agency (AFMSA/SG3PT), this office:

2.6.1. Manages all aerospace physiological training and support programs according to AFI 11-403, *Air Force Aerospace Physiological Training Program*.

2.6.2. Oversees the medical aspects of the aircrew performance program.

2.6.3. Sets guidelines for infection control.

2.6.4. Provides representation to the APEC and APWG.

2.7. Air Force Materiel Command (AFMC).

2.7.1. Conducts an AFE science and technology program to ensure technologies will exist to satisfy future Air Force requirements.

2.7.2. Through the Aeronautical System Center, 77th Aeronautical Systems Wing, 77th Aeronautical Systems Group (77 AESG/CC) for acquisition management.

2.7.2.1. Is the acquisition and initial procurement authority for aircrew performance systems, managing specific AFE programs through developmental phases and initial procurement, and works with the 642 CBSG (WR-ALC) on program transition for sustainment support and final systems disposition.

2.7.2.2. Maintains Operational Safety, Suitability, and Effectiveness (OSS&E) compliance of developmental and future AFE items IAW AFI 63-1201, *Life Cycle Systems Engineering*.

2.7.2.3. Review and provide the 642 CBSG recommended updates to the MCL for all man-side AFE related systems and published in TO 14-1-1, *U.S. Air Force Aircrew Life Support Equipment and Ensemble Configurations*.

2.7.2.4. Maintains and updates Air Force TO 00-25-06-2-1, *Intermediate Maintenance, 412A Survival/Life Support System Equipment Work Unit Code Manual*, when new equipment is fielded. If new equipment items are command specific, then the Lead Command will sponsor the update.

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

2.7.2.6. Conducts product engineering evaluations and analysis with the purpose of providing users safe-to-fly certifications and recommendations.

2.7.2.7. Monitors and participates in the acquisition of AFE systems and subsystems for COTS aircraft converted for Air Force missions.

2.7.2.8. Monitors and establishes procedures for the acquisition of AFE items through the COTS/NDI programs. Monitors and tracks the procurement, approval, and capability

of COTS/NDI systems used to meet Air Force requirements documented in formal requirement documents to include requirement letters.

2.7.2.9. Works with and monitors other services' AFE 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 AFE technologies into full-scale development.

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

2.7.2.12. Encourages operational input to AFE programs by ensuring MAJCOM, ANG, and 642 CBSG representatives attend key acquisition events.

2.7.2.13. Co-authors in conjunction with 642 CBSG the development, publishing, and maintenance of an Aircrew Performance Strategic Plan (APSP) outlining aircrew performance systems acquisition and sustainment strategies. The APSP will use APEC directed priorities as a basis for the strategic plan.

2.7.2.14. Serves as the approval authority for implementation of new aircrew and aircraft-installed AFE items through initial procurement and accomplishment of the Transfer Management Plan.

2.7.2.15. Establishes procedures for intra-command coordination and configuration control of developmental aircrew performance subsystems and equipment.

2.7.2.16. Assists MAJCOMs in determining training requirements for developmental systems.

2.7.2.17. Assists MAJCOMs and ANG in developing initial production funding plans for each aircrew performance endeavor.

2.7.2.18. Provides technical assistance and laboratory analysis to aircraft mishap safety investigation boards as requested and to the Joint POW/MIA Accounting Command (JPAC), assisting in determining the status of DoD warfighters missing in action.

2.7.2.19. When initiating acquisition contracts, the contracts will include the required DoD Automated Information Technology Barcode Marking Standard on the packaging (see [Attachment 2](#)).

2.7.2.20. Ensures all development and COTS/NDI AFE programs include and meet the TO acquisition requirements set forth in AFI 21-303, *Technical Orders*.

2.7.2.21. Works with 642 CBSG on the transition management of developmental/procurement programs.

2.7.2.22. Provides representation to the APEC and APWG, and provides the status of their aircrew performance programs.

2.7.3. Through the 642nd Combat Sustainment Group (642 CBSG/CC) for sustainment management.

2.7.3.1. Is the sustainment authority for aircrew performance systems, managing specific AFE items providing sustainment support and final systems disposition.

2.7.3.2. Maintains Operational Safety, Suitability, and Effectiveness (OSS&E) compliance of fielded AFE items IAW AFI 63-1201, *Life Cycle Systems Engineering*.

2.7.3.3. Manages and maintains a MCL for all man-side AFE related systems and published in TO 14-1-1, *U.S. Air Force Aircrew Life Support Equipment and Ensemble Configurations*. The MCL will provide a list of all authorized subsystems and equipment in the Air Force AFE inventory.

2.7.3.3.1. The requirement to publish a MCL in TO 14-1-1 is rescinded once the Automated Life-sustaining Equipment Record Tracking System (ALERTS) MCL reports are published. The Air Force ALERTS OPR will ensure that standard report functions are published no later than 24 months from this publication date.

2.7.3.4. Ensures fielded AFE systems and subsystems are integrated with newly developed technologies, systems, and subsystems. Conducts product engineering evaluations and analysis with the purpose of providing users safe-to-fly certifications and recommendations.

2.7.3.5. Monitors and participates in the acquisition of AFE systems and subsystems for COTS aircrew performance converted for Air Force missions.

2.7.3.6. Monitors and establishes procedures for the acquisition of AFE items through the COTS/NDI procedures.

2.7.3.7. Develops procedures to control and coordinate the configuration of fielded AFE subsystems and equipment among MAJCOMs and the ANG.

2.7.3.8. Encourages operational input to AFE programs by ensuring MAJCOM and ANG representatives attend key acquisition events.

2.7.3.9. Employs a Human Systems Support Manager (SSM) to provide centralized logistics support of the AFE systems.

2.7.3.10. Serves as the approval authority for aircrew and aircraft-installed AFE items upon approval of the Transfer Management Plan.

2.7.3.11. Establishes procedures for intra-command coordination and configuration control of fielded aircrew performance subsystems and equipment.

2.7.3.12. Assists MAJCOMs in determining training requirements for system changes.

2.7.3.13. Provide inspection intervals for shelf-life of aircrew performance equipment IAW AFMAN 23-110, *Supply Manual*, Volume 7, Part 3, *The AF Shelf-Life Program*.

2.7.3.14. Leads effort to develop and submit Sustainment Engineering Requirements Plans (SERP).

2.7.3.15. When initiating contracts, the contracts will include the required DoD Automated Information Technology Barcode Marking Standard on the packaging (see [Attachment 2](#)).

2.7.3.16. TO managers in coordination with the equipment specialists will analyze all legacy TOs and present the APWG/APEC with their recommendations for digitizing all legacy TOs IAW AFI 21-303.

2.7.3.17. Assists MAJCOMs and ANG in developing out-year funding plans for fielded aircrew performance systems.

2.7.3.18. Provides technical assistance and laboratory analysis to aircraft mishap safety investigation boards as requested.

2.7.3.19. Provides representation to the APEC and APWG, and provides the status of their aircrew performance programs.

2.8. Air Force Operational Test and Evaluation Center:

2.8.1. Plans and conducts realistic, objective, and impartial Operational Test and Evaluation (OT&E) to determine the operational effectiveness and suitability of Air Force systems and their ability to meet mission needs.

2.8.2. Advises MAJCOMs and ANG on operational test issues.

2.9. MAJCOM and ANG. Assign a full time AFE MAJCOM Functional Manager (AFSC 1P000) to manage the aircrew performance program (MAJCOM FM may delegate their responsibilities to NAF points of contact [POC] or appoint weapon system team chiefs to handle specific issues). **NOTE:** AFE Functional Managers may be assigned to Component NAF to provide direct COCOM support.

2.9.1. Provides representation to the APEC and APWG, and provides the status of their aircrew performance programs.

2.9.2. Establishes command-specific aircrew performance programs according to AFIs and applicable MAJCOM and ANG instructions.

2.9.2.1. Establishes and publishes TO Options List for their respective commands. Exceptions to gaining MAJCOM options will be published by Air Reserve Component (ARC) aircrew performance managers.

2.9.2.1.1. **(Added-PACAF)** Publishes TO Options List for PACAF and PACAF-gained units and posts final version on PACAF AFE CoP.

2.9.3. Reviews aircraft mishap investigation and incident reports (command specific) involving AFE and resulting recommendations.

2.9.4. Through the Allowance Standard (AS) manager; annually reviews and validates AS 016, *Special Purpose Clothing and Personal Equipment*, AS 660, *Weapons Systems Communications Requirements*, and AS 450, *Aircrew Flight Equipment*, AS 538, *Security Police Equipment*, *Organizational Small Arms Equipment*, *Military Dogs*, *Associated Equipment*, and *Civil Disturbance Equipment*, for accuracy and adequacy, and attends the Allowance Source Review.

2.9.4.1. Annually, or as required, HQ ACC will coordinate Allowance Standard review and Night Vision Device workshop.

2.9.5. Identifies operational requirements and prepares Joint Capabilities Integration Development System (JCIDS) documents as required. Coordinates efforts with appropriate maintenance activities prior to submission.

2.9.5.1. Maintains integrity of the OSS&E baseline for all AFE IAW AFI 63-1201 by ensuring newly developed (COTS/NDI) AFE items and modifications to existing AFE

items pursued by units for Air Force aircraft as well as for aircrew use are evaluated and approved by the appropriate organization.

2.9.6. Participates in periodic Research, Development, Test and Evaluation (RDT&E) program reviews as requested by AFMC.

2.9.7. Provides qualified aircrew member and appropriate maintenance personnel (if applicable) expertise early in the requirements definition phase and is involved throughout the RDT&E and acquisition process.

2.9.8. Lead MAJCOMs will publish weapon system specific policy for configuration requirements addressing aircrew and aircraft-installed AFE IAW AFPD 10-9, *Lead Operating Command Weapon Systems Management*. Manages and maintains a MCL for all aircraft AFE related systems, which will be published in AFI 11-2MDS series Addenda A and AFI 11-301, Volume 2 as applicable.

2.9.9. Participates in and monitors OT&E of AFE. If the item is of an MDS specific nature, the lead command for that MDS (refer to AFPD 10-9) will oversee the process with AFMC.

2.9.10. Attends Air Force, joint agency, and industry meetings, groups, boards, task forces, committees, and conferences dealing with developing, modifying, or researching AFE. Conducts MAJCOM workshops during the biennial World-Wide Aircrew Flight Equipment Workshop.

2.9.11. Advises users when the lead MAJCOM will no longer fund specific AFE items for them. This will allow operational and maintenance funded MAJCOMs and ANG time to budget for the equipment.

2.9.12. Establishes AFE Continuation Training (AFECT), (formerly Aircrew Life Support Continuation Training) programs.

2.9.13. Establishes and evaluates AFE technician and supervisor training programs IAW AFI 36-2201, *Developing, Managing, and Conducting Training*. FEOs and enlisted AFE instructors must comply with AFI 36-2105, *Officer Classification, Air Force Enlisted Classification Directory*, and **Table 4.1** of this instruction.

2.9.14. Coordinates formal training requirements between the MAJCOM and ANG, Director of Personnel for submitting class quotas for FEOs and technicians to attend AETC courses.

2.9.15. Convenes an annual AFE Training Review Board (TRB) and Workshop. Biennially, the TRB will be held in conjunction with the worldwide Aircrew Flight Equipment Workshop.

2.9.16. Ensures FEOs (rated officers) fly periodic sorties in primary assigned aircraft to evaluate the adequacy of personal and aircraft-installed AFE.

2.9.17. Provides guidance to units for using, controlling, and safeguarding AFE.

2.9.18. Establishes requirement and evaluates unit AFE Quality Assurance (QA) programs.

2.9.19. Evaluates AFTO IMT 22, *Technical Order Improvement Report and Reply*, IAW TO 00-5-1, *AF Technical Order System*, and AF IMT 1000, *Idea Application*, which refer to AFE systems.

2.9.20. Monitors command manning levels and coordinates with MAJCOM/DP/A1 to ensure AFE manning is optimized. Ensures units notify MAJCOM FMs prior to changing manpower authorizations.

2.9.21. Monitors 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*.

2.9.22. Monitors Deficiency Reports (DR) applying to the aircrew performance system.

2.9.23. Monitors the overall operation of the aircrew performance program in subordinate units. Serves as a focal point concerning unit aircrew performance matters.

2.9.23.1. **(Added-PACAF)** PACAF units will forward results from their local working group to PACAF/A3TC by 01 September of each year. PACAF/A3TC will annually host the APWG through video-teleconference (or by other means) January of each year. PACAF units will invite as a minimum the following members: Egress, Aerospace Medicine (flight surgeon), CE Readiness and Emergency Management, Logistics, Survival, Evasion, Resistance, and Escape (SERE), Safety, MDS aircrew (enlisted/officer) representation, Standards and Evaluation (Stan Eval), Pararescue, and Combat Rescue Officer (CRO) where available. The results of this meeting will be taken to the Aircrew Flight Equipment Executive Council (AFEEC) and Aircrew Protection Working Group (APWG) meetings.

2.9.24. Annually or as required, hosts a working group meeting with MAJCOM representatives involved with Aircrew Performance responsibilities. Membership should include; Aircrew from various MDS, Egress, Aerospace Medicine, Safety, CE Readiness, Logistics, and Survival, Evasion, Resistance, and Escape (SERE). The intent of this working group is to foster a spirit of cooperation, keep lines of communication open, and resolve Aircrew Performance issues that are cross functional in nature. Forward appropriate issues to Air Staff counterparts for resolution.

2.9.25. Monitors and reviews the Unit Type Code (UTC) Logistics Detail (LOGDET) for changes in missions and requirements.

2.9.25.1. **(Added-PACAF)** Conduct staff assistance visits to field units every 24 to 30 months, not to exceed 12 months for units in Korea, for the purpose of providing HQ PACAF/A3TC level assistance. Increased duration of visits may be necessary at the request and cost of the Group commander. Staff assistance visits to ANG units will be coordinated thru NGB A3OS.

2.9.26. Conducts periodic site visits (e.g., Staff Assistance Visit [SAV], Aircrew Standardization and Evaluation Visit [ASEV], Readiness Assistance Visit [RAV]) to subordinate units for the purpose of providing HHQ level assistance and to remain connected to unit level requirements.

2.9.27. Identifies, submits and advocates command aircrew performance program requirements through the command's Program Objective Memorandum (POM), Requirements Review Board, Financial Management Board, and other resource management system processes.

2.9.28. Monitors AFE cost factors for the Air Force Cost Analysis Improvement Group/Cost Per Flying Hour (AFCAIG/CPFH) program.

2.9.28.1. Identifies and defines, (by decision-tree method), total aircrew performance program AFCAIG/CPFH requirements for each MDS aircraft configuration within the command.

2.9.28.2. Provides AFE annual call requirements to the MAJCOM/A3/A4 AFCAIG/CPFH manager for inclusion in the AFCAIG/CPFH program funds budget process.

2.9.28.3. Notifies unit Operations Group commander or equivalent of approved “funded” requirements and ensures program needs are met.

2.9.29. Serves as AFE Functional Area Manager (FAM) for Aerospace Expeditionary Force (AEF) issues.

2.9.30. Provides a synopsis of installation-level audit report results from units within command. This cross feed provides an awareness of potential issues that units may evaluate at their base and take corrective action as necessary.

2.10. Operations Group Commander or ARC Equivalent:

2.10.1. The operations group commander or equivalent will appoint a rated officer to serve as the group FEO (AFE Flight Commander). An AFE Senior NCO (or civil service or contractor equivalent) will serve as the group AFE Superintendent to assist the FEO/Flight Commander in the management of the wing AFE Program. These individuals and manpower positions will be assigned and organizationally aligned to the Operations Support Squadron (OSS)/OSL, which is a single stand-alone Flight, as well as all other AFE (or equivalent) functions, personnel, and manpower positions to include all military, civil service, and contractor equivalent will be assigned and organizationally aligned to the OSS/OSL (AFE Flight), (Guardian Angel, Special Tactics, and ANG units will determine alignment of these positions in the applicable supplement to this instruction). The group FEO and the AFE superintendent are responsible to the operations group commander, through the OSS/CC, for the management of the wing/group AFE program to include manpower, training, rotations of AFE personnel, and budget. **EXCEPTION:** Appointment of an FEO in the ANG is optional.

2.10.1.1. Civilian organizations, to include Most Efficient Organizations (MEO), High Performance Organizations (HPO) and re-engineered organizations will continue to comply with the provisions of their existing compliance documentation (e.g. Performance Work Statement [PWS], Statement Of Work [SOW] or Statement Of Objectives [SOO]) that is currently being enforced. When the compliance documents expire or when requirements change, the civilian organization will adhere to the new enforcement documentation (PWS, SOW, SOO) as directed by OG/CC and described in **paragraph 2.10.1**. The enforcement documentation shall be modified to acknowledge the transfer of all 1P0X1, AFE (formerly 2A7X4, Survival Equipment and civilian equivalent) work force authority and functions to the OG/CC. In the interim, these organizations/activities will provide survival equipment maintenance training for military and civil service personnel in all aspects of the career field IAW the Career Field Education and Training Plan (CFETP), as applicable.

2.10.1.2. Contracted organizations will continue to comply with the provisions of their existing contracts. Contracted documentation will be modified to acknowledge the transfer of functional liaison to the OG/CC and described in [paragraph 2.10.1](#). Contracted organizations will be utilized to provide survival equipment maintenance training, and/or resources for military and civil service personnel in all aspects of the career field IAW the CFETP, as applicable. **NOTE:** All civilian and contracted organizations performing AFE functions are subject to HHQ level assistance from Director of Operations (A3) per [paragraph 2.9.25](#), regardless of existing organizational alignment.

2.10.1.3. **(Added-PACAF)** FEOs will be rated officers who are qualified and current in the group aircraft of assignment or Combat Rescue Officers (CRO). FEOs are required to complete training as defined in Table 4.1 of this instruction. Assignment stability is an important part of the aircrew FEO function. Primary duty FEOs should serve for at least 18 months with exception to Korea based units, not applicable to AFRC.

2.10.2. Ensure a qualified senior NCO (1P071 or equivalent) is appointed to function as QA Inspector for all AFE activities. The AFE QA program will reside and be organizationally aligned to the OSS AFE Flight (OSL).

NOTE: Due to continued manning constraints, assignment/authorization manpower of AFE QA inspector personnel/position will reside/assigned in the OSS AFE Flight (OSL), (ANG units will determine alignment of these positions in their applicable supplement to this instruction). Furthermore, designated AFE (1P071 or equivalent) Quality Control inspectors may augment the AFE (1P071 or equivalent) QA inspector, as necessary, in the various AFE activities/sections.

2.10.2.1. Rotation of AFE QA Inspectors. The OSS/CC is responsible for developing/executing a plan to rotate AFE QA inspectors. As a minimum, personnel must have 6 months time in the unit before being selected as an AFE QA inspector and should be designated as an AFE QA inspector for a maximum of 36 months/minimum of 24 months. AFE QA inspectors at OCONUS short tours, ARC, civil service, and service provider employees do not have any time requirements.

2.10.3. Ensure the AFE superintendent or government AFE QA inspector/representative (for contract organizations) is appointed to the wing Exercise Evaluation Team (EET) to evaluate and ensure compliance with AFE areas of responsibility.

2.10.3.1. **(Added-PACAF)** Evaluations will focus on employment, deployment, and reconstitution of AFE sections. To include AFE aircraft equipment configuration, mobility bins, ACCA processing and weapons handling procedures. The AFES will retain copies of all EET reports for two years. Document and maintain information gained during exercise evaluations within AFES SAV files.

2.10.4. Ensure the AFECT program is actively managed and instructors are qualified and certified IAW [Chapter 5](#) of this publication. AFRC units will forward waiver requests through the NAF channels to HQ AFRC. ANG waivers will be sent to NGB/A3OS.

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

2.10.5.1. **(Added-PACAF)** Ensure funding is available to maintain Emergency Procedures Trainers (EPT), and related training equipment to support the wing AFE training program. Contact Det 1 ACC/TRSS, Luke AFB, AZ for major overhaul, modification or reconfiguration to EPT.

2.10.6. Ensure AFE facilities meet standards in AFI 32-1024, *Standard Facility Requirements*, and AFH 32-1084, *Facility Requirements*. Ensure all AFE items are stored/maintained within approved AFE facilities and IAW applicable technical data.

2.10.7. Ensure funds are allocated for the continued management of all AFE programs and contingency plans. This includes establishing a government purchase card for the Cost Per Flying Hour (CPFH), Operations & Maintenance (O&M), and aircrew chemical defense assets.

2.10.7.1. **(Added-PACAF)** Support sending, as a minimum, FEO and AFES to annual AFE conferences, symposiums and training review boards.

2.10.8. AFE skill sets are critical to combat operations. During wartime contingencies, Inspector General Exercises (IGX), Operational Readiness Exercises (ORE), Mobility Exercises (MOBEX), Readiness Assistance Visits (RAV), and generation exercises, AFE personnel must be available to perform mission-essential duties to sustain AFE operations (i.e., AFE issue, fitting and inspection, aircraft-installed AFE configurations, pre-deployment AFE briefings, aircrew contamination control area (ACCA) operations, AFE decontamination, etc.). Ensure AFE personnel are not assigned duties that will detract from wartime proficiencies and requirements.

2.10.8.1. **(Added-PACAF)** Ensure AFE personnel are knowledgeable of unit OPLANS, DOCs, and UTCs as they relate to the operation and maintenance of AFE at deployed locations. AFEOs/AFES will have full knowledge of OPLANS, DOCs, and UTCs; and will review these documents at least annually.

2.10.9. Ensure standardized guidance is provided for aircraft and AFE configurations, mobility and chemical defense operations at bare-base and unit exercise locations. Standardized guidance will be provided to the maximum extent possible.

2.10.9.1. **(Added-PACAF)** Wing units with same MDS or aircrew flight equipment will have gear identically configured. This will reduce confusion when pilots/aircrew members fly with other units within the wing.

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

2.10.11. Ensure compliance with minimum AFE requirements as established by the provisions of AFI 11-202, Volume 3, *General Flight Rules*, this instruction, applicable technical orders, and aircraft flight manuals.

2.10.12. Ensure all aircrew and passengers wear or have readily available aboard the aircraft for use all required AFE. In no case will equipment worn or carried on aircraft be less than that prescribed by AFI 11-202, Volume 3, AFI 11-2MDS, Volume 3, and AFI 11-301, Volume 2, *Maintenance and Configuration Requirements for Mobility Air forces (MAF) Aircrew and Aircraft-Installed Aircrew Life Support Equipment (ALSE)*. **NOTE:** Once aircraft AFE item configurations are added to all individual MDS-specific flying instructions,

they will be removed from AFI 11-301 Vol 2. Manside AFE item configuration, clothing information and inspection requirements will be added to AFI 11-301 Vol 2 upon revision.

2.10.13. Ensure only flying clothing and AFE items approved “safe-to-fly” and authorized by the Air Force Equipment Management System (AFEMS), TOs, aircraft-specific manuals, and this instruction are utilized for flight operations. All other items require approval from appropriate MAJCOM AFE focal point prior to use.

2.10.13.1. Flight Boots. The primary aircrew boots, as authorized in AS 016, are the FWU-3/P, FWU-8/P, and the lightweight model 700, 770, 790 and sage green 690 Belleville® Aircrew Boot. Lace-up zipper inserts may be used. Boots, flying, extreme cold, Sorrel Premium, Mukluks, as well as vapor barrier thermal are authorized for wear during winter flight operations at the discretion of unit commander.

2.10.13.1.1. **(Added-PACAF)** See Chapter 7 for clothing requirements such as boots, gloves, etc.

2.10.14. Evaluate and forward waiver requests to respective MAJCOMs, NAFs or ANG as outlined in [paragraph 1.3](#).

2.10.14.1. Operations Group commanders may request waivers to requirements of this publication when unique or unusual circumstances affect the unit's ability or requirements to implement stated policy or procedure. Forward requests by letter or message through appropriate MAJCOM or ANG to HQ USAF/A3O-AT describing the specific requirement that is creating the problem and explaining why a waiver is needed.

2.10.14.2. If approved, waivers remain in effect for 1 year unless HQ USAF/A3O-AT specifies a shorter period of time, cancels it in writing, or issues a change that alters the basis for the waiver.

2.10.14.3. ANG units will forward waiver requests through the POC to NGB/A3OS.

2.10.14.4. AFRC units will forward waiver requests through applicable NAF to HQ AFRC/A3T.

2.10.15. Monitor TO/AFI directed local manufacture duties assigned to the AFE Flight (i.e., aircraft refurbishments, non-TO and non-AFI directed fabrications/repairs, etc.). The OG/CC is the approval authority for all work order requests of this nature as related to the AFE Flight.

2.10.15.1. **(Added-PACAF)** AFE will support T.O. /AFI directed local manufacture maintenance requests when the request directly supports aircraft.

2.10.16. **(Added-PACAF)** Ensure direct communications (NIPR & SIPR networks) are available to the AFES for resolution of AFE matters. Both NIPR & SIPR network accounts will be maintained by AFEOs and AFES.

2.11. Operations Group or Equivalent FEO (Flight Commander) or Equivalent/AFE Superintendent. The FEO (Flight Commander) and AFE Superintendent will:

2.11.1. FEOs (rated officer) will maintain currency in unit-equipped aircraft. If equipment modifications are made that change ground egress, ejection procedures, or affect crew comfort, etc the FEOs 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 Mission Design Series (MDS), as described in [paragraph 2.14.1.1](#).

2.11.1.1. **(Added-PACAF)** FEO and AFES will budget for and attend annual AFE training review board and working group meetings.

2.11.2. Ensure AFE personnel are trained and certified IAW [Chapter 4](#) of this instruction. Additionally, ensure personnel with special/unique training are assigned to duty positions maximizing those qualifications (i.e., premeditated personnel parachute inspection/packing, pararescue equipment maintenance etc.). Movement of these personnel should be kept to a minimum necessary to ensure continuity and return of time and funds spent on training and qualification of these individuals.

NOTE: All civil service and contractor equivalent personnel internal and external new hires for this career field must be a graduate of the prior Aircrew Life Support (AFSC 1T1X1) and/or Survival Equipment (AFSC 2A7X4) technical training courses (or equivalent), sister-service equivalent courses, or FAA certified equivalent background. Ensure this is written into the position(s) requirement, contract, and/or Statement of Work as applicable.

2.11.3. Monitor TO distribution accounts, authorized as their own TO Distribution Office (TODO), at each AFE section assigned within the operations group using the web-based Enhanced Technical Information Management System (E-TIMS). Electronic TOs will be filed and maintained IAW TO 00-5-1. Ensure that AFE sections maintain a current file of publications, TOs and manuals pertaining to issue, inspection, maintenance and use of assigned AFE, and ensure compliance with instructions contained therein. Ensure a familiarization program exists to ensure AFE personnel are knowledgeable of TOs and publications.

2.11.3.1. **(Added-PACAF)** Familiarization program will include T.O.s, T.O. Option List, publications, messages, and PACAF A3TC CoP. Ensure all AFE personnel perform an initial review of applicable T.O.s and publications pertaining to their duties. All AFE personnel will annotate compliance with written initials and or electronic signature and date.

2.11.3.2. **(Added-PACAF)** Maintain a record of applicable TCTOs for 2 years from date of completion. Appropriate inspection forms will be annotated to identify TCTO compliance.

2.11.3.3. **(Added-PACAF)** AFES will establish accounts through the Electronic Technical Order Library (E-TIMS) at the following website: <https://www.my.af.mil/etims/ETIMS/index.jsp> Publication familiarization will also include effective training on accessing electronic publications and forms from DOD and government websites.

2.11.3.4. **(Added-PACAF)** Wing/group AFES are functional OPRs on all related proposed TO changes and will establish procedures within the wing to assign improvement report numbers. As the functional experts, AFES are responsible for reviewing, evaluating, and processing wing-initiated AFTO Form 22s dealing with AFE related issues to ensure reports are correct, prior to submitting reports to higher headquarters.

2.11.3.5. **(Added-PACAF)** Each wing/group AFE office will establish Technical Order Distribution Office (TODO) responsibilities IAW TO 00-5-1.

2.11.4. Electronic TOs do not need to be printed if available on-screen during equipment inspection or used for reference only. Ensure electronic copies (discs, etc.) are kept current and available for times when internet or LAN access is not available. Refer to T.O. 00-5-1, T.O. 00-5-3, *Air Force Technical Order Life Cycle Management*, and AFI 21-303, *Technical Orders*, for guidance on maintaining electronic TOs.

2.11.5. Conduct annual assessments of each section or satellite shop. Maintain records of such visits for at least 2 years IAW AFI 33-364, *Records Disposition – Procedures and Responsibilities*. The respective functional manager will determine assessment frequencies for the AFRC and AFSPC.

2.11.5.1. **(Added-PACAF)** Task evaluations will be performance based and conducted during annual assessments. Document results of the evaluations in the assessment report. The AFES will determine the type of evaluation to be conducted, how many evaluations are required, and who will be evaluated. Not applicable to AFRC.

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

2.11.7. Ensure other units' reports (e.g., Operational Readiness Inspections [ORI], Unit Compliance Inspections [UCI], Air Force audits, etc.) are reviewed for benchmarking and comparison.

2.11.8. Monitor status of deficiencies identified during AFE QA no-notice inspections, SAVs, UCIs, ORIs, and unit self-assessments until corrective actions have been completed. Corrective actions will be documented as prescribed by governing instructions or as required to reflect current status and actions taken.

2.11.8.1. **(Added-PACAF)** Monitor the status of HQ and wing SAV findings, UCIs, ORIs, and unit self-assessment discrepancies will be reviewed monthly by AFES. Ensure NCOICs provide monthly updates until completion.

2.11.9. Conduct initial task certifications for the AFE section NCOICs.

2.11.9.1. **(Added-PACAF)** Question and answer sessions do not qualify as task certification. Task certifications will include a total review of all applicable guidance from associated technical orders and AFIs. Document evaluation on AF Form 623a.

2.11.10. Gather squadron-level acquisition and sustainment recommendations from unit AFE and aircrew personnel to identify AFE systems requirements. MAJCOMs and ANG will task each wing/unit for inputs in preparation for annual APEC meetings.

2.11.11. Ensure newly developed (COTS/NDI) AFE pursued by units for Air Force aircraft as well as for aircrew use is evaluated and approved using 77 AESG requirements identified on the Air Force Portal at: <https://wwwd.my.af.mil/afknprod/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-OT-MC-87-9&Filter=OO-OT-MC-87>.

2.11.12. Ensure FEOs and SNCOs attend the Life Sciences Equipment Investigation Course, and mishap investigation response kit(s) are developed and available to allow active participation as an interim or primary mishap investigation board member. Provide functional expertise representation to the base Disaster Control Group for response to major peacetime accidents.

2.11.12.1. **(Added-PACAF)** Refer to AFPAM 91-211, *USAF Guide to Aviation Safety Investigation*, Attachment 2 for mishap response kit contents. AFE mishap investigator must have attended the USAF Life Sciences Equipment Investigation Course, J3AZR11P071 0L1A.

2.11.13. FEOs and AFE superintendents will contact their applicable MAJCOM and ANG when contractors/vendors contact them regarding product use.

2.11.14. Review and approve local In-Process Inspection (IPI) tasks annually for applicability, and ensure IPI qualified personnel are annotated on the automated Special Certification Roster (SCR), designated by unit commander via appointment letter for units that do not have access to an automated SCR, or as determined by applicable MAJCOM and ANG.

2.11.14.1. **(Added-PACAF)** IPI qualified personnel will be on Special Certification letter signed by the operations group commander (or equivalent).

2.11.15. Ensure positive control of all pilferable parts and items assigned to AFE sections.

2.11.16. Ensure -21 and groundcrew CBRN equipment is not stored within the AFE section.

2.11.17. **(Added-PACAF)** Ensure copies of annual munitions and aircrew flight equipment forecasts, AFTO Form 22s (relating directly to AFE issues), suggestions, material deficiency reports, and hazard reports are routed to HQ PACAF/A3TC. NOTE: When posting forecasts on applicable OPR web sites notify the MAJCOM via e-mail of the posting completion. ANG units will route information through NGB A3OS. AFRC units will route information through their respective NAF to HQ AFRC/A3TS for action.

2.11.18. **(Added-PACAF)** Units with Out-of-Cycle or supplementary munitions requirements will contact the supporting MASO and review AFI 21-201, *Management and Maintenance of Non-Nuclear Munitions*, for requisition procedures. AFE Superintendent will inform MAJCOM of shortages and status.

2.11.19. **(Added-PACAF)** Certified Quality Assurance personnel will only perform QCIs on equipment they are qualified/certified on IAW CFETP requirements.

2.11.20. **(Added-PACAF)** Establish liaison and coordinate with other organizations supporting the AFE function to ensure equipment is adequately maintained.

2.11.21. **(Added-PACAF)** Implement current aircrew flight equipment policies, regulations, and guidance established by higher headquarters directives.

2.11.22. **(Added-PACAF)** Implement wing AFE policy/procedures.

2.11.23. **(Added-PACAF)** Establish communications among OG/OSS/squadron agencies to ensure appropriate issues are elevated/addressed

2.11.24. **(Added-PACAF)** Aircrew Protection Panel.

2.11.24.1. **(Added-PACAF)** Host and document an annual aircrew protection panel meeting. The aircrew protection panel is chaired and managed by the operations group FEO or AFES. This panel is convened as required to review and take action on support associated with AFE configuration, inspection, modification/TCTO, or control procedures and AFECT issues. Not applicable to AFRC.

2.11.24.2. **(Added-PACAF)** Core panel members will consist of (as a minimum) AFE NCOICs, primary AFECT instructor(s), egress, plans and scheduling, base supply, quality assurance, CE readiness and Emergency Management, SERE, base safety, aircrew members, contract survival equipment personnel, and maintenance personnel. Other agencies such as intelligence, enlisted specialty training managers, medical logistics, and flight medicine should be included as necessary to assist with training issues, equipment inspection, and modification requirements, or control procedures. If there are no issues pertaining to core panel members, they are not required to attend. Meeting minutes will be maintained for two years. Send report to PACAF/A3TC by 1 September IAW paragraph 2.9.23.1.

2.11.25. **(Added-PACAF)** Ensure units develop a master configuration data list to assist in determining unit equipment requirements. Some variables to consider in formulating this list are number of aircraft assigned (single/dual seat/multi-place), number of survival kits (to include maintenance turnaround spares), number of aircrew supported (to include attached aircrew), 10 percent spare equipment, etc. Preferred document for master configuration data list is The Organizational Configuration (TORC) from Air Force Equipment Management System (AFEMS).

2.11.26. **(Added-PACAF)** Ensure deficiency and hazard reports; AFTO Form 22; AF IMT 457, *USAF Hazard Report*; and suggestions, as appropriate, are submitted for all AFE or system deficiencies. All AFTO Forms 22, AF IMTs 457, and suggestions pertaining to AFE systems or equipment will be evaluated by the AFES prior to submittal to the next higher level. The host base safety office will review and process reports as required by AFI 91-204. Ensure the applicable MAJCOM AFE function is furnished an information copy of any report not specifically addressed to their office.

2.11.27. **(Added-PACAF)** Report time change component requirements IAW TO 00-20-9 and higher headquarters directives.

2.11.28. **(Added-PACAF)** Establish, manage, and supervise centralized AFECT according to this instruction (as supplemented). The group FEO and/or AFES will randomly attend training sessions to review and critique the following areas: Event presentation and instructor knowledge; Condition and use of training aids; Aircrew involvement/hands-on demonstrated proficiency and Instructor and student safety requirements and conditions.

2.11.29. **(Added-PACAF)** Ensure current AFE training and equipment is available for fire department personnel. Inspect equipment annually to prevent foreign object damage to aircraft when actual aircraft is used for fire department extraction exercises. AFE is only responsible for training Fire Department lead trainer and providing updates on newly fielded equipment for the purpose of aircrew rescue and extraction IAW AFI 32-2001.

2.11.30. **(Added-PACAF)** Ensure, when requested, local rescue agencies are provided training on the functional use and operation of AFE that may be encountered during local

rescue operations. Local agencies should be apprised of any changes in equipment type or operation.

2.11.31. **(Added-PACAF)** Ensure all assigned AFE personnel (to include senior NCOs who perform equipment maintenance and are not signed off on all identified unit tasks) maintain an accurate OJT record. Due to merger of two AFSC's, once SNCO's are signed off on all unit tasks, a training OJT record is no-longer required as per AFI 36-2201. If required, the AFES will ensure egress and Red X certifications are properly documented in appropriate maintenance data management system or an AF IMT 1098, *Special Task Certification and Recurring Training*. Not applicable to ANG unless in retraining status.

2.11.32. **(Added-PACAF)** Determine the desired number of AFE personnel for attendance of formal survival/instructor courses IAW Table 4.1. Formal AETC courses will be requested through HQ PACAF/A3TC. ANG units will route formal requests through respective base training offices. AFRC units will forward requests through the NAF to HQ AFRC/A3TR.

2.11.33. **(Added-PACAF)** Monitor *Conventional Munitions Restricted or Suspended* (CMRS) website to ensure serviceability of AFE munitions. Publish, distribute, and update a restricted munition listing at least quarterly based on CMRS and/or notification from base munitions. *Conventional Munitions Restricted or Suspended* (CMRS) website: <https://www.my.af.mil/ammoprod/wm>

2.11.34. **(Added-PACAF)** Ensure compliance with all safety standards to include, but not limited to, AFOSH training, documentation, and increased precautions for storage of lithium batteries (AFMAN23-110V1, Part 1, *Basic AF Supply Procedures*, Chapter 4, Section 4C, Storage and Handling of Lithium Batteries).

2.11.35. **(Added-PACAF)** As a minimum to control flow procedures, ensure the AFE section is designated and properly marked as a limited access area. Upgrade flow control procedures as necessary to ensure equipment security.

2.11.36. **(Added-PACAF)** Monitor the following web sites monthly to ensure serviceability of aircrew chemical warfare assets: Joint Acquisition Chemical Biological Radiological Nuclear Knowledge System (JACKS) Website: <https://jacks.jpeocbd.osd.mil> Aircrew CBRN Defense website: <https://wwwd.my.af.mil/afknprod/ASPs/docman/DOCMain.asp?Tab=0&FolderID=OO-OP-AF-61-8&Filter=OO-OP-AF-61>

2.11.37. **(Added-PACAF)** Ensure all component software is current (i.e. PRC-112 radios, loaders, and the RCTS-003B) by checking the PACAF AFE CoP or appropriate technical guidance. Ensure Technical Order Distribution Office has a computer Program Identification Number (CPIN) account established to receive software updates when released.

2.11.38. **(Added-PACAF)** AFE is only responsible for performing local manufacture jobs that are required by T.O. guidance.

2.11.39. **(Added-PACAF)** The AFES will ensure all manning documents are accurate. Assign personnel to the manpower positions based on their rank and skill level.

2.11.40. **(Added-PACAF)** Ensure a file-plan is established and training is accomplished IAW AFI 33-322, *Air Force Records Management Program*.

2.12. AFE Quality Assurance (QA).

2.12.1. At minimum, one senior NCO (must hold AFSC 1P071 or equivalent) will be appointed to provide QA oversight for the AFE program. The AFE QA program will reside and be organizationally aligned to the OSS AFE Flight (OSL). The AFE QA inspector will perform Quality Assurance Evaluator (QAE) duties and responsibilities at related contractor operated locations as applicable IAW AFI 63-124, *Performance-Based Services Acquisition*. MAJCOMs and ANG units may supplement this instruction to further outline roles, responsibilities, training and other program requirements as appropriate.

2.12.1.1. Ensure AFE QA program is effectively managed in accordance with this instruction, and all applicable regulations, technical data and instructions. ALERTS, ALSMS, and QCM-4 (series there of) are automated QA databases approved for AFE.

NOTE: Due to continued manning constraints, assignment and authorization manpower position(s) of all AFE QA inspector personnel will reside/assigned and organizationally aligned to the OSS AFE Flight (OSL). Additionally, units may appoint a minimum grade TSgt (must hold AFSC 1P071 or equivalent) if manning does not support a senior NCO, (or equivalent).

2.12.1.1.1. **(Added-PACAF)** Local database tracking systems may be used.

2.12.2. The AFE QA inspector will perform no-notice QA inspections within each AFE duty section. Results of no-notice inspections will be documented on locally developed form, and maintained for two years. AFE superintendent will be immediately notified of any major discrepancies.

2.12.2.1. **(Added-PACAF)** The primary function of the QA NCO is to continually evaluate the effectiveness of the flight/squadron OJT and internal QA programs through no-notice QA inspections and task evaluations. All findings will be documented and provided to the FEO/AFES monthly. NCOIC's are required to provide written corrective action for each finding. This data will be kept on file for two years. In conjunction with AFES, establish minimum requirements for the number of inspections to be performed annually on equipment, programs, and task evaluations. QA Inspectors will use this instruction as a reference for performing this evaluation.

2.12.3. When trends are noted, recommend corrective action and assign an OPR/Office of Collateral Responsibility (OCR); report trends and status to the OG/CC periodically until closed. AFE QA will publish and define the trend program in the unit supplement to this instruction and maintain trend data for at least one year. Provide monthly trend analysis to the OSS/CC and Group FEO (Flight Commander)/AFE superintendent.

2.12.4. Evaluate and ensure compliance within AFE areas of responsibility as an active member of the wing Exercise Evaluation Team (EET).

2.12.4.1. **(Added-PACAF)** The AFES provides the areas of evaluation/compliance for EET scenarios/inputs.

2.12.5. Coordinate on all requests for locally designed tools or equipment.

2.12.6. Manage Time Compliance Technical Order (TCTO) programs to ensure satisfactory integration of AFE with aircrew recovery systems, in cooperation with the AFE superintendent. Advise HHQs and unit commanders of program delays or supply problems as they occur, and upon completion of the TCTO.

2.12.6.1. **(Added-PACAF)** Appropriate forms will be annotated to identify TCTO compliance. Monitor all active TCTO compliance and status in ALSMS/FIRMS. Create “TCTO Status” and “Stock Inventory” reports through the “Report Builder” functionality and monitor until TCTO completion on all applicable equipment.

2.12.6.2. **(Added-PACAF)** Perform initial review of TCTO and determine applicability. Advise FEO/AFES of program delays or supply problems as they occur. Attend TCTO planning meetings. Provide technical support to performing work centers. Report all deficiencies in technical instructions and kit-proofing to the appropriate TCTO manager IAW T.O.s 00-5-1 and 00-5-15, *Air Force Time Compliance Technical Order Process*.

2.12.7. Manage TO distribution accounts for each AFE section assigned within the operations group, in cooperation with the AFE superintendent. Ensure that AFE sections maintain a current file of publications, TOs and manuals pertaining to issue, inspection, maintenance and use of assigned AFE, and ensure compliance with instructions contained therein. Ensure a familiarization program exists to ensure AFE personnel are knowledgeable of TOs and publications.

2.12.7.1. **(Added-PACAF)** Provide guidance, evaluate, process, submit, and track all proposed changes to AFTO IMT 22s, *Technical Manual (TM) Change Recommendation and Reply*, Deficiency Reports, Innovative Development through Employee Awareness (IDEA) program, and suggestions affecting AFE in cooperation with the AFES.

2.12.8. Maintain applicable AFE IPI listing(s) and accomplish annual review with AFE superintendent.

2.12.9. Monitor status of deficiencies identified during AFE QA no-notice inspections, SAVs, UCIs, ORIs, and unit self-assessments until corrective actions have been completed, in coordination with the AFE superintendent. Corrective actions will be documented as prescribed by governing instructions or as required to reflect current status and actions taken.

2.12.9.1. **(Added-PACAF)** Provide FEO/AFES monthly updates until resolution of SAV/HQ inspection findings.

2.12.10. Maintain records of all approved locally designed tools and equipment, including pictures or drawings and a description of the use for each item. (If pictures, drawings, or authorizations are not available, they will be re-accomplished).

2.12.11. Develop procedures for control and management of replacement, warranted, expendable and consumable hand tools, HAZMATs, and other items contained in Composite Tool Kits (CTK).

2.13. Operations Support Squadron Commanders:

2.13.1. Responsible for the wing/group AFE program to include manpower, training, rotations of AFE personnel, and budget, etc. Also, monitors related contractor operated locations IAW AFI 63-124.

2.13.2. Provide non-cost per flying hour program items, i.e., Gortex©, steel toed boots, hearing protection, to all assigned AFE personnel.

2.13.3. Route visit assessment reports through the operations group commander (or equivalent) to provide them with an accurate picture of units' health.

- 2.13.4. Monitor TCTO programs to ensure satisfactory integration of AFE with aircrew recovery systems.
- 2.13.5. Ensure instructions, publications, manuals, procedures, and TCTOs pertaining to the inspection, maintenance, and use of assigned AFE, systems, and subsystems are maintained according to HHQs directives.
- 2.13.6. Ensure AFE Continuation Training is accomplished IAW **Chapter 5** of this instruction, the appropriate AFI 11-2MDS-series, Volume 1 publications, and command supplements to this instruction.
- 2.13.7. Ensure the AFE program is operating in compliance with all applicable safety directives.
- 2.13.8. Ensure adequate funding is provided to sustain non-cost per flying hour program items.
- 2.13.9. Implement policies and procedures as HHQs directs.
- 2.13.10. **(Added-PACAF)** Ensure AFE facilities are adequate to afford maximum protection of AFE equipment and sufficient in size to support equipment inspection, storage, training, aircrew ready room, and office space for program management. Facilities must satisfy requirements identified in 14D-series, 14S-series, 15X-series TOs. And AFH 32-1084.

2.14. Flying Squadron Commanders:

- 2.14.1. Appoint a rated officer to provide emergency Egress training as described in **paragraph 5.2.2.1**.
 - 2.14.1.1. Rated officer will maintain currency in unit-equipped aircraft. If equipment modifications are made that change ground egress, ejection procedures, or affect crew comfort, etc the rated officer will fly with the new equipment to identify required changes to operational and training procedures for a particular MDS, as applicable.
 - 2.14.1.1.1. **(Added-PACAF)** Commanders of Total Force Integration (TFI) squadrons will assign crew members to serve as the AFE liaison officer. Individual will work with the host active duty or reserve FEO and AFE Superintendent to establish a line of communication and address issues related to the squadron's flying requirements.
- 2.14.2. Conduct OT&E programs on AFE as HHQs directs.
- 2.14.3. Restrict from flying any aircrew who have not completed required training events (grounding events only).
- 2.14.4. Ensure all aircrew process through the AFE section upon assignment or PCS, as well as before and after flying duties.

2.15. AFE Section/Satellite NCOICs:

- 2.15.1. AFE Section/Satellite NCOIC responsibilities may be consolidated, in whole and/or in part, at the AFE Flight level.

2.15.2. Maintain a current file of directives, procedures, TOs, and manuals pertaining to issue, inspection, maintenance, and use of AFE or systems possessed, and ensure compliance with instructions contained therein. Electronic TOs will be filed and maintained IAW TO 00-5-1, TO 00-5-3, and AFI 21-303.

2.15.3. Monitor aircraft conversion and TCTO modification programs to ensure satisfactory integration of AFE with aircrew recovery systems. Advise wing/group FEO, AFE superintendent and AFE QA inspector of program delays or supply problems as they occur.

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

2.15.5. Forward unit level acquisition and sustainment requirements to the operations group FEO and AFE superintendent. These inputs are the root of AFE systems requirements that feed the APEC process.

2.15.6. Maintain accurate copies of AFTO Form 392, *Parachute Repack Inspection and Component Record*, (or computer generated equivalent), on ACES II Drogue parachutes, and reference copies on ACES II Personnel Recovery Parachutes. **NOTE:** Computer software (ALERTS/ALSMS) may be used in lieu of AFTO Form 392.

2.15.7. Ensure access is restricted in the parachute shop/section to personnel directly involved in the parachute packing operations. This is to prevent tampering, damage, and or contaminants getting on parachute assemblies.

2.15.8. Ensure compliance with AFI 11-410, *Personnel Parachute Operations*, as applicable.

2.15.9. Ensure the capability exists to inspect, clean, repair and package aircraft thermal curtains and thermal radiation barriers if required. A qualified aircraft maintenance crew chief will remove thermal protective devices, inspects and reseals devices that are serviceable. Unserviceable devices are delivered to the AFE main section for inspection and repair. Devices and shields remaining sealed are not re-inspected.

2.15.10. Ensure only qualified repairs and modifications are performed on flight clothing and equipment IAW applicable technical orders and instructions. Owning individuals are responsible for sewing on rank and Velcro as required by AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*.

2.15.11. Provide (OG/CC approved) local manufacture capability to meet flying squadron mission requirements and monitor all local manufacture work order requests.

2.15.11.1. AFE personnel are not responsible for MWR or CE tent repair, machine covers, upholstery, installation of aircraft fabric patches, (AFE personnel can pre-cut aircraft fabric patches), or other local manufacture projects not directly related to aircrew flight equipment.

2.15.12. AFE personnel are not responsible for the maintenance of groundcrew Night Vision Goggles (NVG) and devices, (i.e. Security Forces, Airfield Operations, etc.). **EXCEPTION:** Only for Special Tactics Team, Combat Control Team, and Guardian Angel already supported by AFE personnel for that specific operator mission.

2.15.13. Evaluate the extent of damage and wear to material and equipment IAW technical data, and determine whether to repair or replace.

2.15.14. Ensure only authorized equipment is issued or installed in survival kits/vests. NCOIC will contact their group FEO and AFE superintendent when contractors contact them directly regarding product use.

2.15.15. Develop and coordinate a workcenter specific local explosive safety program through the AFE FEO/Superintendent and wing safety office.

2.15.16. Compile a list of tasks requiring IPIs. The list must include Work Unit Code (WUC), nomenclature, specific TO, paragraph, and step number within the TO task where the IPI will be called for. When developing the IPI list, consult with AFE QA on trends or problem areas that continually warrant extra supervisory attention. Forward list to AFE FEO/Superintendent for approval.

2.15.17. Conduct monthly scheduling meeting with Egress and Wing PS&D, as applicable.

2.15.18. Monitor and manage daily operations pertaining to the section they are assigned, (i.e., daily workloads, flying schedule coverage, leave, and appointments).

2.15.19. **(Added-PACAF)** Section NCOICs or designated representatives will initially certify all shop personnel on all core tasks. Question and answer sessions do not qualify as task certification. Task certifications will include a total review of all applicable guidance from associated technical orders. Document evaluation on AF Form 623A.

2.15.20. **(Added-PACAF)** If hand held lasers are issued from the AFE section, consult AFI 11-301V4, *Aircrew Laser Eye Protection (ALEP)*, found on the PACAF AFE CoP. NCOICs will ensure the applicable Laser (Danger) signs are posted. Ensure assigned personnel are familiar with the extreme dangers of these devices, IAW AFOSH STD.

2.16. Aircraft Commanders (AC). ACs will ensure required AFE is available prior to each flight and all personnel are briefed or trained on the use, care, and safeguarding of this equipment.

2.16.1. ACs of multi-place aircraft will ensure all prepositioned AFE items are serviceable, inventoried, and certified on the AFTO Form 46, *Prepositioned Life Support Equipment* (or computer generated equivalent). Before departing home station and following crew changes, review, sign, and date the AFTO Form 46 document to ensure all required protective clothing and AFE items have been certified as installed by AFE and configuration documents match mission requirements. Ensure appropriate number and type of life preservers are aboard for over-water missions carrying children and infants. Notify the AFE section of any onboard equipment shortages or unserviceable conditions. Note discrepancies on AFTO Form/IMT 781A, *Maintenance Discrepancy and Work Document*.

2.16.2. Crewmembers whose main function is performing duties in the rear of a multi-place aircraft, e.g., combat camera and aeromedical nurses and technicians will coordinate emergency actions and clothing requirements with a qualified crew member (i.e., aircraft commander, boom operator, loadmaster) prior to flight. ACs will determine the clothing requirements for the route of travel when performing passenger or patient transport missions aboard MAJCOM support aircraft. The AC is responsible for ensuring each crewmember is wearing the required clothing and equipment, or has it aboard the aircraft and readily

available for flight or alert duty. Military passengers, except for litter bound patients, are responsible for ensuring clothing needs meet environmental requirements IAW AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*.

2.16.3. The AC or designated aircrew representative will document and ensure missing AFE items and enroute configurations are annotated on AFTO Form/IMT 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 AFE items (i.e., station where discovered missing, names, agencies and persons contacted, etc.) Reports of survey will be initiated IAW AFMAN 23-220, *Reports of Survey for Air Force Property*.

2.16.4. ACs of multi-place aircraft will ensure all AFE items, (e.g. survival kits, life preservers, anti-exposure suits, emergency passenger oxygen systems [EPOS], parachutes, etc.), are returned to their proper storage location.

2.17. Aircrew Members:

2.17.1. Obtain personal flying equipment (i.e., flight suits, boots, gloves, etc.) from assigned/attached squadron supply, maintain accountability and serviceability, and ensure availability for maintenance.

2.17.1.1. Wear only authorized undergarments. The use of nylon/polyester undergarments in situations of increased risk of fire exposure (forward operations, flying, fuel handling, etc.) is not authorized.

2.17.2. Ensure flying helmets, oxygen masks, and headsets are carried in the helmet bag to and from the AFE facility. The helmet and mask are the only items authorized in the main compartment of the helmet bag. The headset will be carried in the helmet bag outer pocket.

2.17.3. Possess all required Aircrew Chemical Defense Equipment (ACDE) items prior to deploying to a chemical threat area or serving on conventional warfare alert as required by reporting instructions. Ensure ACDE has been fit and issued prior to deployment.

2.17.4. Receipt for ACDE on an AF IMT 1297, *Temporary Issue Receipt*, or other authorized forms when equipment is issued and properly sized and fitted by AFE personnel. Return ACDE to the AFE facility upon completion of training, alert tour, deployment or Temporary Duty (TDY).

2.17.5. Maintain proficiency in donning, doffing, buddy dress, and Aircrew Contamination Control Area (ACCA) decontamination procedures including open air processing as applicable.

2.17.6. Securely store all AFE to prevent damage or theft while in their possession. Receipt for NVG on AF IMT 1297, or other authorized forms when issued by AFE sections. Flight helmets, oxygen masks, and D-1 ACDE bags will not be palletized unless placed in a durable nesting box to prevent damage.

2.17.6.1. **(Added-PACAF)** Aircrew will hand carry helmet/mask unless packed in a hard protective case while traveling on any commercial flight.

2.17.7. Perform preflight inspections on all assigned or prepositioned AFE as required by appropriate aircraft manuals, TOs, local policies, and HHQs directives.

2.17.7.1. **(Added-PACAF)** Will not carry any food items, bug sprays, batteries, petroleum based products or any other items that may cause contamination to oxygen equipment in their helmet bags. These items will be removed and discarded when discovered.

2.17.7.2. **(Added-PACAF)** Ensure AFE equipment is made available to AFE personnel for required inspection and maintenance.

2.17.7.3. **(Added-PACAF)** Perform preflight inspection and operational checks using appropriate in-shop equipment on all personal flying equipment, including NVGs and ACDE, prior to the first flight of the day.

2.17.8. In and Out-process through respective AFE sections.

2.18. Support Agencies:

2.18.1. Egress elements are responsible for removal and installation of integrated parachutes, survival kits and oxygen connectors as outlined in applicable Job Guides. Additionally, Egress personnel will locate inadvertent beacon activation on the flightline. AFE personnel will locate inadvertent beacon activations within their shops/vehicles, and on flightlines where Egress personnel are not assigned. Egress responsibilities are further defined in AFI 21-101, *Aircraft and Equipment Maintenance Management*.

2.18.2. Medical Treatment Facility (MTF):

2.18.2.1. Optometry Clinic: Provides optometry support for chemical warfare eyepieces, contact lenses, screening of users for laser visors, high contrast visors, and night vision devices. Additionally, perform annual eye exams on maintainers of NVG, and modifies aircrew spectacle temple bars used with the MBU-13/P mask IAW AFJI 44-117, *Ophthalmic Services*.

2.18.2.2. Flight Medicine: Conducts quarterly visits to AFE sections to ensure compliance with TO 15X-1-1, *Maintenance Instructions, Oxygen Equipment*, standards. MAJCOMs and ANG units will determine visit frequency for geographically separated units. The flight surgeon inspects AFE shops for compliance with occupational health and safety standards and assists in resolving mask-fitting problems. Records of such visits are maintained IAW the Air Force Records Disposition Schedule (RDS) located at <http://https://www.my.af.mil/gcss-af61a/afrims/afrims/>.

2.18.2.2.1. **(Added-PACAF)** Provide units a listing of pilots/aircrew members approved to use HCV, LEP, and NVGs.

2.18.2.3. Medical Supply: Inspects and maintains first aid kits as applicable IAW applicable directives and replaces unserviceable components as necessary. Medical supply personnel will provide, or assist AFE units in acquiring, first aid kits, isopropyl alcohol, gauze pads, and other medical supplies used for cleaning and maintaining AFE.

2.18.2.4. Bioenvironmental Engineering: Conducts occupational health surveillance IAW AFI 48-145, *Occupational Health Program*. Determines adequacy of controls established for occupational health hazards.

2.18.2.5. Avionics: Ensure all Joint Helmet Mounted Cueing System (JHMCS) related AFE issues are routed through AFE FEO/Superintendent for resolution. Coordinates inspection of JHMCS maintenance helmets through AFE FEO/Superintendent.

2.18.2.5.1. Conducts solder repairs for AFE items as required.

2.18.3. Maintenance elements are 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).

Chapter 3

AFE PROGRAM MANAGEMENT

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

3.2. Budgeting:

3.2.1. Each AFE activity must use established DoD and USAF budgeting procedures to ensure their AFE programs are properly funded.

3.2.2. Each AFE activity will prepare and submit a detailed annual budget and financial plan to their appropriate commanders and resource advisors. Submit unfunded requirements during mid-year and end-of-year calls IAW MAJCOM procedures.

3.2.2.1. **(Added-PACAF)** Each AFE activity will prepare and submit a detailed annual budget, financial plan and unfunded requirements to their appropriate commanders through their resource advisors during mid-year and end-of-year calls.

3.3. Supply Accounts:

3.3.1. The OSS AFE section will budget for and establish their own supply account as specified by AFMAN 23-110, Vol 2, Part 13, Chapter 8.

3.3.2. When appropriate, local contingency plans will include qualified AFE technicians who will assume supply custodial responsibilities at deployed AFE locations.

3.3.3. Ensure custodians receive base supply customer training as needed IAW AFMAN 23-110, *Supply Manual*, Volume 2, Part 13, and the Education and Training Course Announcements (ETCA) site at: <https://etca.randolph.af.mil/>.

3.3.4. Develop procedures to track supply, equipment and clothing expenditures so as to provide quantitative requirements to the unit commander and resource manager to assist in and justify budgeting and funding requirements.

3.3.5. To ensure/justify equipment authorizations, units will maintain a current printed copy of the TORC screen for each NSN. This product will be used as the configuration data resume list. Refer to AFH 170-1, *Resource Manager's Handbook* (projected to be AFPAM 65-605).

3.3.5.1. **(Added-PACAF)** Ensure AFEMS The Organizational Configuration (TORC) screen authorizations are accurate and reviewed semi-annually. Maintain TORC screen printouts for a minimum of 1 year in TAB B of Custodian Account/Custody Receipt Listing (CA/CRL) for each account.

3.3.5.2. **(Added-PACAF)** To reduce data calls, as a minimum, units will input CA/CRL items, other test equipment not covered on a CA/CRL and the equipment categories and types into ALSMS/FERMS.

3.3.6. Ensure applicable Force Activity Designators (FAD) code is used when requisitioning AFE. 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) and advice code "2G" to ensure assets received from depot have the most service-life remaining on item.

3.3.7. Report time-change component requirements IAW TO 00-20-9 and HHQs directives. AFRC associate units will provide information copies to their respective AFRC NAF.

3.3.7.1. **(Added-PACAF)** Units will utilize ALSMS/FERMS for time change forecasting.

3.3.8. Use AS 538, AS 450, AS 660, aircraft configuration instructions, mission requirements, Logistics Details (LOGDET), AFEMS, MAJCOM specific guidance and this instruction to determine the basis of equipment required.

3.3.8.1. **(Added-PACAF)** Use additional Allowance Standards to ensure required quantities of aircrew flight equipment not listed in AS 016 and 450 are on hand and authorized.

3.3.9. Each supply account custodian must submit supply difficulty and mission impact letters as required.

3.3.9.1. **(Added-PACAF)** Units will forward copies of supply difficulty letters, mission impact statements, and base supply responses to AFES for submittal to HQ PACAF/A3TC. Supply difficulty and mission impact letters are not required for CA/CRL items. Information must include NSN, nomenclature, off-base requisition number, priority, and quantity requested. ANG AFES will submit copies of supply difficulty letters, mission impact statements, and base supply responses to NGB A3OS. AFRC units will forward information through the NAF to HQ AFRC/A3TR.

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

3.4.1. Aircraft AFE components either on or off aircraft, to include prepositioned, used solely for flying operations are included as part of the CPFH program. In addition, aircrew equipment (other than uniforms and personal items are CPFH expenses. To purchase these items, use EEIC 644 for Materiel Support Division (MSD) items, EEIC 605 for General Support Division (GSD) items, and EEIC 61952 for Government Purchase Card (GPC) items. Units should use the most recent FY standardized CPFH RC/CC and PFMR/ORG codes applicable to their unit. Equipment items are not funded through the CPFH program.

3.4.2. AFE and A4 AFCAIG/CPFH managers will identify and define, (by decision-tree method), total aircrew performance program AFCAIG/CPFH requirements for each MDS aircraft configuration within the command that adhere to HAF and MAJCOM guidance. Items not passing the decision-tree method for AFCAIG/CPFH AFE funding will be considered non-fly items.

3.5. Equipment Redistribution. In the event AFE becomes excess to organizational needs, the AFE superintendent will notify respective MAJCOM, ANG, or NAF FMs for possible redistribution prior to turn-in.

3.6. Transfer of AFE:

3.6.1. During aircraft transfers or movement of AFE, communication between depot, modification agencies, and gaining or losing units is required. Comply with the instructions in AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, AFMAN 23-110, Volume 2, Part 2, Chapter 15, *Asset Reporting, Redistribution, and Disposal*, and TO 00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*.

3.7. In-shop/section Quality Control (QC). AFE QC programs are designed to provide feedback to technicians, trainers, supervisors, and managers to eliminate defects and deviations from established guidance.

3.7.1. Quality Inspector (QI) Requirements. AFE QIs are 1P071 (or equivalent) technicians, trained and certified in the QI process. Highly experienced 5-level technicians may be appointed as an exception when approved by the AFE FEO/Superintendent. AFE QIs will augment the AFE QA Inspector.

3.7.2. Quality Control Inspection (QCI). QCI is a process of visual examination (without disassembly) of specific AFE items to ensure the highest level of product quality.

3.7.2.1. Perform QCIs on at least 10 percent of each type of equipment inspected, and 100 percent of all survival kits, repacked parachute assemblies, and any items received from other supporting agencies. QCIs should be performed prior to the next flight. Additionally, 100% of all 3-skill level work will receive a QCI until the individual is task certified.

3.7.2.1.1. **(Added-PACAF)** QCIs will be performed daily. 25 percent QCI includes equipment that has been post-flight inspected. Not applicable to AFRC.

3.7.2.1.2. **(Added-PACAF)** Support agencies (not all inclusive) include: precision measurement equipment laboratory (PMEL), and medical supply.

3.7.2.1.3. **(Added-PACAF)** Refer to Attachment 3 for additional Quality Assurance requirements.

3.7.3. Develop and ensure IPIs are performed by current and qualified 1P071 (or equivalent) personnel. IPIs will be annually reviewed, updated and documented on locally developed form coordinated with AFE superintendent and AFE QA inspector. The form will remain on file until the next repack, repair, or aircraft transfer. As a minimum, IPIs will be performed during inspection and repack of parachutes and survival kits.

3.7.3.1. **(Added-PACAF)** As a minimum IPIs must include life raft connection to the drop lanyard, torque value, installation of swag ball/universal adapter, survival components, and a closing inspection. Ensure the IPI is documented appropriately.

3.7.4. Maintain a two-person concept when servicing equipment requiring IPI(s) to include at least one certified 1P0X1 technician and one IPI certified 1P071 (or equivalent). The IPI certified 1P071 will be present during accomplishment of the IPI tasks associated with the equipment. Only the person(s) performing the inspection, repack, and repair will annotate the parachute logs and records. The IPI inspector will annotate the appropriate locally developed IPI checklist.

3.7.5. The original technician (inspector) will correct all discrepancies prior to the piece of equipment being placed back in service.

3.7.5.1. **(Added-PACAF)** If original technician is not available to correct discrepancies before equipment is needed for flight it will be repaired and placed in service by another certified technician.

3.7.6. Monitor QC documentation (e.g., AF IMT 2420, *Quality Control Inspection Summary*, or equivalent) to identify positive and negative trends. Provide QC documentation to the AFE QA function monthly or earlier if a negative trend is identified.

3.7.6.1. (**Added-PACAF**) Units will maintain a historical file for at least 12 months.

3.7.6.2. (**Added-PACAF**) As an optional tool to help assist in managing unit QC programs, PACAF AFE units may use programs such as a local QC Performance and Tracking Program or "QCM4" Program and modify it to best suit their unit needs.

3.7.7. AFE personnel certified to clear "Red-X" discrepancies will be annotated on the automated SCR, designated by unit commander via appointment letter for units that do not have access to an automated SCR, or as determined by applicable MAJCOM and ANG. AFE "Red-X" certified personnel will be a 1P071 (or equivalent). The first O-6 in the chain of command may waive the 7-level requirement for a SSgt (E-5) or SrA (E-4) to clear "Red-X" discrepancies based on their experience and technical expertise; such a waiver will terminate once a sufficient quantity of 7-levels are available.

3.8. Composite Tool Kit (CTK) Program. The objectives of the CTK program are to prevent and eliminate Foreign Object Damage (FOD) to aircraft, engines, missiles, training and support equipment, and to reduce tool cost through effective control of assets.

3.8.1. Establish a CTK and lost tool procedure program to control and account for tools used in each AFE section IAW AFI 21-101, Chapter 10, and AFMAN 23-110, Vol 2, Part 13, Chapter 8, as well as MAJCOM, and wing/unit directives.

NOTE: AFE sections are authorized to manually track all their CTKs, or ALERTS is authorized as well for AFE sections to track their CTKs. AFE sections are not required to use the automated Tool Accountability System (TAS). Units will develop local tracking procedures that will include quantity of serviceable/unserviceable oxygen connectors dispatched to and from the flightline (if applicable).

3.8.2. Each tool, item of equipment, or consumable contained in a CTK has an assigned location identified either by inlay cuts in the shape of the item, shadowed layout, or silhouette. No more than one item is stored in a cutout, shadow, or silhouette except for tools issued in sets such as drill bits, allen wrenches, apexes, or paired items (e.g., gloves, booties). **NOTE:** Personal tools are NOT authorized on the flightline or in any maintenance area. (e.g., Mini-Mag type flashlights, Leatherman type multi-tools, buck knives).

3.8.3. Units must place the 9-digit Equipment Identifier (EID) on all CTKs, tools not assigned to a box, and dispatchable equipment that is of sufficient size. The 9-digit EID must be placed on the outside of dispatchable CTKs. Tools located inside the tool box may be marked with less than 9-digits but must contain the 4-digit World Wide Identification (WWID) and identifying characters that tie the tool back to the CTK. For example, tools inside an assigned dispatchable CTK "U6JG00001" may be marked "U6JG1".

3.8.4. Inventory requirements. As a minimum, account for all CTKs, tools, and dispatchable equipment at the beginning and end of each shift, when moving from aircraft to aircraft, annually, and when custodians change. **NOTE:** Annual inventories do not replace inventories conducted each shift.

3.8.5. Tool Accountability. AFE Flight commanders, superintendents and section NCOICs, through CTK custodians, are responsible for tool and equipment accountability and control (knowing where tools are and who has responsibility for them.) When a person signs for a tool or piece of equipment, they are accountable for the item until it is returned to the AFE section and accountability transfers back to the CTK custodian.

3.9. Technical Orders (TO), Publications, Operating Instructions (OI) and Product Quality Deficiency Reports (PQDR):

3.9.1. A recommended TO and publications list is at (see [Attachment 1](#)). The list is for use as a reference guide only and is not all-inclusive. The list will help you determine your requirements and is not a mandatory requirement list.

3.9.1.1. AFE sections will maintain specific TOs for items serviced by the unit. AFE sections are authorized to use electronic TOs; they will be filed and maintained IAW TO 00-5-1, TO 00-5-3, and AFI 21-303. Also, MAJCOMs and ANG units will supplement this instruction with requirements for maintaining electronic TOs as applicable.

3.9.1.1. (PACAF) Refer to TO 00-5-1, *AF Technical Order System*, for use of manufacturers' manuals in support of appropriately approved COTS/NDI equipment for PACAF use. Approved COTS manuals can be found on the ACC AFE CoP.

3.9.1.2. MAJCOMs, ANG, NAFs, and units will determine when optional procedures listed in TOs are mandatory within their respective commands or units and publish a comprehensive list.

3.9.1.2.1. (Added-PACAF) MAJCOM options list is available on the PACAF AFE CoP.

3.9.1.3. Proposed changes to Air Force TOs (AFTO IMT 22), Deficiency Reports (DR), and Suggestions (AF IMT 1000) affecting AFE will be sent to respective MAJCOM or NAF (info copy of the DR) according to TO 00-5-1, and AFI 38-401, *The Air Force Innovative Development Through Employee Awareness (IDEA) Program*.

3.9.1.3.1. Units will utilize the computer based Innovative Development through Employee Awareness (IDEA) Program Data System (IPDS) to submit suggestions.

3.9.1.4. The AFE superintendent is the OPR on all AFE related proposed TO changes. Unless the task is performed by the supporting wing/base TODO, the AFE superintendent will then establish procedures within the group to assign improvement report numbers to the AFTO IMT 22. As the functional experts, AFE superintendents and AFE QA inspectors are responsible for reviewing and processing wing-initiated AFTO IMT 22 and DRs affecting AFE. The AFE superintendent and AFE QA inspector will evaluate all AF IMT 1000 or IDEAs pertaining to AFE.

3.9.2. Policy, procedures, and responsibilities for PQDR submission and exhibit handling and processing are outlined in TO 00-35D-54, *USAF Materiel Deficiency Reporting and Investigating System*.

3.9.3. Operating Instructions (OI). Units may develop unit OIs or local directives, which address local mission requirements.

3.9.3.1. **(Added-PACAF)** The AFES will develop standardized OIs to be used throughout the wing/group where AFI/T.O. guidance is not available. At minimum OIs will be developed for Explosive Safety, Composite Tool Kit Program, Technician Training, Quality Assurance, and Hazardous Communication.

3.9.3.2. **(Added-PACAF)** Checklists. Maintain equipment checklists and work cards IAW TO 00-5-1. The AFES will review and forward local prepared checklist to the appropriate offices for approval in accordance TO 00-5-1.

3.10. Aircrew Flight Equipment Facilities:

3.10.1. Facilities will be maintained IAW applicable Air Force Occupational, Safety, and Health (AFOSH) and TO 15X-1-1, *Maintenance Instructions, Oxygen Equipment, 12S10-2AVS9-2, Maintenance Manual, Intermediate with Illustrated Parts Breakdown, Image Intensifier Set, Night Vision, Type AN/AVS-9 (V)*, 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 AFE items requires environmental and climatic controls. Refer to AFI 32-1024 and AFH 32-1084, 14S and 14D series technical orders for specific guidance on spatial and environmental requirements.

3.10.2. 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.

3.10.2.1. **(Added-PACAF)** All repairable and unserviceable items will be properly tagged and stored neatly and separately to prevent accidental use.

3.10.3. Ensure sufficient work and storage areas are available for inspections and storage. When necessary, pad and cover work benches and storage bins with material to provide smooth surfaces and edges.

3.11. Industrial Hygiene. Personnel will follow universal precautions, including the use of impermeable gloves when contact with body fluids is likely, IAW AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*, and AFI 48-101, *Aerospace Medical Operations*, when servicing AFE items.

3.12. Resource Protection and Control:

3.12.1. Installation commanders designate controlled areas and storage facilities IAW AFI 31-101, *Air Force Installation Security Program*. Units will establish a resource protection program that meets DoD and Air Force protection criteria IAW AFI 31-101.

3.12.2. Maintain munitions storage facilities within AFE sections IAW DOD 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*, AFI 31-101 and AFMAN 91-201, *Explosives Safety Standards*.

3.12.3. AFE sections storing firearms will ensure facilities are maintained IAW AFI 31-101.

3.12.4. Ensure internal circulation control procedures are established to control visitors and safeguard and monitor AFE IAW AFI 31-101 and TO 15X-1-1. Upgrade visitor flow control procedures during heightened force protection conditions as necessary to protect AFE items.

3.12.4.1. **(Added-PACAF)** AFE maintains and stores equipment that is mission essential and highly pilferable. AFE inspection areas will not be utilized as a gathering place (i.e. lunches, family dinners, unit functions, etc.). As a minimum, ensure the AFE sections are designated as limited access areas to protect individual crew member's AFE and prevent unauthorized entry and/or removal of AFE. Visitors not assigned to the unit must be escorted at all times.

3.12.5. Units will maintain classified material consistent with AFI 33-201V2, *Communications Security (COMSEC) User Requirements*.

3.13. Safety:

3.13.1. Administer mishap prevention, AFOSH, and operational risk management programs tailored to the needs of AFE personnel. Refer to AFI 90-901, *Operational Risk Management*, AFPAM 90-202, *Operational Risk Management (ORM) Guidelines and Tools*, AFI 91-202, *The US Air Force Mishap Prevention Program*, and AFI 91-301 for application into the AFE program.

3.13.2. Supervisors must attend Supervisor Safety Training IAW AFI 91-301.

3.13.3. Contact local wing or group safety staff, bioenvironmental engineering services, and fire department to ensure section hazards are identified and corrective actions are addressed.

3.13.4. Supervisors must develop a safety, fire protection, and health On-the-Job Training (OJT) program as outlined in AFI 91-301, Attachment 5.

3.13.5. Units will maintain and store chemicals in Occupational Safety and Health (OSHA) approved facilities or containers. Quantities on hand will be consistent with Hazardous Material Pharmacy policy.

3.14. Hazardous Communications (HAZCOM) Program:

3.14.1. Each AFE section will ensure hazards in the work environment are identified to Military Public Health (MPH) for resolution.

3.14.2. Document the training provided, and abatement equipment for each individual exposed to shop hazards on the individual's AF IMT 55, *Employee Safety and Health Record*.

3.14.3. Units will coordinate with the responsible agency to perform periodic review of Material Safety Data Sheet (MSDS) for currency and document appropriately.

3.15. Explosive Safety. Establish and develop an explosive and munitions storage safety program IAW AFMAN 91-201 and AFI 91-202. Develop a local directive and review it annually.

3.15.1. **(Added-PACAF)** AFE sections will not store non-AFE munitions items. Non-AFE munitions are those items not inspected and not physically placed into and removed from service by AFE personnel.

3.16. Mishap Prevention. A mishap prevention program tailored to the needs of AFE personnel will be administered using the applicable portions of AFI 91-202. The local wing or group safety staff should be contacted to ensure all shop hazards are addressed and procedures are established.

3.16.1. **(Added-PACAF)** Malfunction Officer Duties. AFE sections involved with airborne operations and personnel drops must ensure that AFE individual(s) are qualified IAW AFMAN 11-420, *Static Line Parachuting Techniques and Tactics*, paragraph 20. Additionally, malfunction officers should be familiar with AFI 11-410, *Personnel Parachute Operations*, AFJ 13-210(I), *Joint Airdrop Inspection Records*, *Malfunction/Incident Investigation and Activity*.

3.17. Operational Risk Management (ORM). The FEOs, AFE superintendents, and the AFE section NCOICs will ensure ORM or other risk management programs and techniques are fully implemented IAW AFI 90-901, *Operational Risk Management*, and AFPAM 90-902, *Operational Risk Management (ORM) Guidelines and Tools*.

3.18. USAF Aircrew Flight Equipment Awards Program:

3.18.1. Individual Award. These awards are established to recognize outstanding individual accomplishments and enhance the visibility of AFE personnel. Each calendar year, one MAJCOM staff member, FEO, senior NCO, NCO, Airman, ARC SNCO, ARC NCO, ARC Airman, and applicable civilian categories will be recognized for outstanding performance and initiative.

3.18.2. Unit Award. This MAJCOM level award is established to recognize outstanding unit accomplishments and enhance the visibility of the unit's AFE program. Each calendar year, two operations group AFE programs are recognized for outstanding performance and initiative. One represents small programs, and the other large programs.

3.18.3. Units submit nominations via electronic mail to respective MAJCOMs as outlined in AFI 36-2807, *Headquarters United States Air Force Deputy Chief of Staff Air and Space Operations Annual Awards Program*.

3.18.3.1. **(Added-PACAF)** Submissions must be received by HQ PACAF/A3TC NLT 15 January of each year.

3.18.4. Once MAJCOM and ANG winners have been selected, nominees for Air Force-level awards will follow the same procedures as stated in **paragraph 3.18.3**, submitting nominees to HQ USAF/A3O-AT. Additional information and samples are available on the USAF Aircrew Flight Equipment CoP website at: <https://wwwd.my.af.mil/afknprod/ASPs/CoP/OpenCoP.asp?Filter=OO-OP-AF-61>.

3.19. Automated Life Support Management Systems (ALSMS). ALSMS is a management tool for use by AFE personnel. Units are authorized to use ALSMS to best suit their needs, only until conversion to ALERTS is complete. Units tracking equipment with the ALSMS program are not required to duplicate the data maintained in the computer on status boards, shop inspection cards, or forms. AFE superintendents will standardize equipment tracking methods within their respective groups. Ensure back-up is maintained to prevent loss of data.

3.20. Automated Life-sustaining Equipment Record and Tracking System (ALERTS). Air Mobility Command (AMC) is the MAJCOM responsible for the development and certification of the ALERTS program and will host an annual working group (MAJCOM POCs) to optimize ALERTS efficiency. Travel and per diem will be unit funded. This program will serve as a replacement for ALSMS for all USAF AFE functions. See **Chapter 6** of this instruction for details on ALERTS.

3.20.1. MAJCOM POCs will develop and publish a MAJCOM implementation plan for all AFE areas to fully integrate ALERTS.

3.21. Integrated Maintenance Data System (IMDS)/G081. Automated tracking systems (i.e., IMDS, G081, etc.) will be used as directed by technical order and MAJCOM A3T (or equivalent) guidance. AFE personnel will ensure, through Maintenance Operations Flight (MOF) Plans, Scheduling, and Documentation Section, that all aircraft installed AFE items are loaded in Maintenance Information System (MIS) for control purposes. **EXCEPTION:** Use of subject automated tracking systems in the ANG is optional, unless specifically directed by technical order.

Chapter 4

TECHNICIAN TRAINING

4.1. Purpose. The purpose of this chapter is to establish minimum training requirements for AFE personnel and provide guidance on conducting AFE OJT programs.

4.1.1. AFE Technician Training. AFE training is an instructional process that leads to task qualification through technician continuation training or upgrade and qualification training conducted IAW AFI 36-2201, *Developing, Managing, and Conducting Training*, AFSC 1P0X1 AFE CFETP, and **Table 4.1** of this instruction. The training program must ensure AFE personnel, including military, civilian and contractor equivalent, become and remain task qualified. The documentation of training is paramount to the success of the training program.

4.1.1.1. ALERTS is authorized for use as a fully automated electronic equivalent AFE technicians' AF Form 623, *Individual Training Record*. Units that automate their records do not need to hand carry hard copies when deploying per AFI 36-2201, Volume 3, *Air Force Training Program On the Job Training Administration*.

NOTE: Training Business Area (TBA) is an authorized AF Form 623 automated electronic equivalent alternative for those units that do not have access to ALERTS.

4.1.1.1.1. **(Added-PACAF)** TBA will be utilized for AF Form 623 records.

4.2. Responsibilities:

4.2.1. AFE Superintendent, (or civil service or contractor equivalent):

4.2.1.1. The AFE superintendent, with assistance from NCOICs, will develop and tailor a Master Task Listing (MTL) using the current CFETP IAW AFI 36-2201.

4.2.1.1.1. **(Added-PACAF)** Master Training Plan will include an upgrade and qualification timeline for each skill level.

4.2.1.2. Identify all mission related training requirements to meet MDS-specific and ancillary unit needs for wartime and peacetime operations using AFSC 1P0X1 CFETP.

4.2.1.3. Develop a rotation plan to ensure all assigned technicians are trained and remain proficient in all AFE sections within the shops (flotation, parachute, fabrication, helmet, oxygen, etc.)

4.2.1.4. **(Added-PACAF)** Trainers and certifiers will be qualified IAW AFI 36-2201.

4.2.2. NCOICs, (or civil service or contractor equivalent):

4.2.2.1. Manage the overall OJT program for their respective AFE section.

4.2.2.2. Ensure all trainees are evaluated by a qualified task evaluator/certifier. Trainees who fail evaluation(s) will be re-entered into training. MAJCOMs and ANG units will supplement this instruction with requirements outlining accomplishment and frequency of task evaluations, and task re-certification.

4.2.2.3. Ensure all technicians scheduled to attend formal training courses have completed all prerequisites before attendance.

4.2.2.4. Evaluate all technical school graduates (AFSC 1P031A and 1P031B) to ensure proficiency levels as specified in the approved CFETP.

4.2.2.4.1. Report training deficiencies using the Customer Service Information Line (CSIL) IAW AFI 36-2201. Send information copies of Air Education and Training Command (AETC) questionnaires concerning recent technical school graduates to respective MAJCOM or ANG, as applicable.

4.2.2.5. Plan, schedule, evaluate, and administer training.

4.2.2.6. Counsel trainees and take administrative actions as necessary.

4.2.2.7. Document all training IAW AFI 36-2201, current CFETP, any additional guidance from HHQs and this instruction.

4.2.2.8. Maintain an OJT record for technicians IAW AFI 36-2201. Use of automated technician training records (ALERTS et. al.) is authorized. For those units that do not have access to ALERTS, Training Business Area (TBA) is an authorized alternative.

4.2.2.8.1. **(Added-PACAF)** TBA is primary database for automated technician training records. Other equivalent Air Force approved databases may be used for OJT records management. ANG may use any approved database for technician training records and OJT records management.

4.2.2.9. Ensure periodic ancillary training and task qualification training is conducted as required.

4.2.2.10. Establish a 6-month recurring training program on infrequently maintained systems (e.g., ACES II drogue chute) to ensure proficiency levels are maintained.

4.2.3. AFE Task Evaluator/Certifier:

4.2.3.1. The AFE task evaluator/certifier is highly qualified and experienced in AFE tasks and has completed the Air Force Training Course (J6AJI3S2X1 001) or the Task Certifier Course (J6AJS3S2X1 000).

4.2.3.2. Record task evaluations according to instructions provided in the respective CFETP when a trainee performs a task to required standards IAW AFMAN 36-2245, *Managing Career Field Education and Training*.

4.2.3.3. Reevaluate all newly assigned personnel, including military, civilian, and contractor equivalent in previously certified areas.

4.2.3.4. Evaluate all AFE personnel using pass and fail criteria. Document all technician task evaluations on prescribed AF Forms.

4.2.3.4.1. **(Added-PACAF)** Question and answer sessions do not qualify as task evaluations.

4.2.4. AFE Trainer:

4.2.4.1. Experienced 5-skill level technicians who have completed the Air Force Training Course (J6AJI3S2X1 001) or the Training the Trainer Course (J6AJS3S2X1 001).

- 4.2.4.1.1. **(Added-PACAF)** Refer to AFI 11-410, *Personnel Parachute Operations* for qualification/certification requirements for premeditated parachutes.
- 4.2.4.2. Must be qualified on the tasks they instruct.
- 4.2.4.3. Will document training as appropriate IAW current CFETP and AFI 36-2201.
- 4.2.5. Trainee:
 - 4.2.5.1. Must actively participate in opportunities for qualification and skill-level upgrade training (UGT).
 - 4.2.5.2. Must progress to and maintain knowledge, qualifications, and appropriate skill-level within their assigned specialty.
 - 4.2.5.3. Must schedule their on and off-duty time to complete upgrade Career Development Course (CDC) and self-training requirements.

Table 4.1. AFE PERSONNEL TRAINING REQUIREMENTS.

NOTE: Lists all Air Force AFE mandatory and desirable training. MAJCOMs will supplement this table with their unique requirements. Acronyms: AFECTI is AFE Continuation Training Instructor and FEO is Flight Equipment Officer.

COURSE TITLE	1P031	1P051	1P071	1P091	AFECTI	T1P0X1	FEO
Aircrew Flight Equipment Apprentice, J3ABR1P031 003	M						
Combat Survival Training, S-V80-A (Note 5 & 10)	D	D	D	D	D	D	M
Water Survival School – Parachuting, S-V86-A (Notes 1, 5 & 10)	D	D	D	D	D	D	M
Arctic Survival Training, S-V87-A	D	D	D	D	D	D	D
Water Survival School Non- Parachuting, S-V90-A (Note 5 & 10)	D	D	D	D	D	D	M
Academic Instructor Course, MAIS001 (Note 4 [& 7, AFECTIs only])			D	D	M	M	
Night Vision Goggles Instructor Course (Note 6)					D	D	
Maintenance of Panoramic Night Vision Goggles (PNVG), J7AZT1P051 0G1A (Note 3)	D	D	D	D	D	D	
Maintenance of Joint Helmet Mounted Cueing System (JHMCS), J7AZT1P051 0J1A (Note 3)	D	D	D	D	D	D	
Maintenance of Combat Survivor Evader Locator (CSEL) radio, J7AZT1P051 0C1A (Note 3)	D	D	D	D	D	D	
Trainer for Combat Survivor Evader Locator (CSEL) radio, J7AZT1P051 0C2A (Note 3)	D	D	D	D	D	D	
Contingency Wartime Planning Course, MCADRE002			D	D			

Introduction to Personnel Recovery, PR101	D	D	D	D	D	D	D
USAF Life Sciences Equipment Investigation Course, J3AZR1P071 0L1A			D	M	D	D	M
Physiological Training (Notes 2, 7 & 10)	D	D	D	D	M	D	M
Airborne (Parachutist) Course, L5AQA1XXXX 0A1A	D	D	D	D	D	D	D
USAF Underwater Egress Training, S-V84-A (Note 8)	D	D	D	D	D	D	D
Static Line Parachute Systems (MC-1), J3AZR2A754 0M1A (Note 9)	D	D	D	D			
Static Line Parachute Systems (MC-6), J7AZR1P051 0S1A (Note 3 & 9)	D	D	D	D			
Ram Air Parachute Systems (MC-4/5), J3AZR2A754 0R1A (Note 9)	D	D	D	D			
Automatic Ripcord Release Assembly (8600F6), J5AZA2A754 0F6A (Note 9)	D	D	D	D			
Emergency Medical Technician					D	D	
Water Safety Instructor Training					D	D	
AFE Program Managers Course 3J5ACC1P0X1 000 (Y120004)			D	D			D

LEGEND: M = Mandatory; D = Desirable

NOTES:

1. This course may be substituted with course S-V90-A, Water Survival Training, Non-parachuting.
2. Physiological Training is required initially and a MDS specific refresher every 5 years thereafter for enlisted AFECTIs. Refer to AFI 11-403.
3. These mobile training team courses are for personnel performing maintenance and/or instruction.

4. Completion of Principles of Instruction (J3AZR3S200 011 or J3AZT3S200 011), SAC Aircrew Life Support Instructor Course (Y120006), or ACC Classroom Instructor Course (Y120022) satisfies this requirement.
5. Mandatory for ANG AFECTI, and active duty AFECTI assigned to AFSOC only.
6. Required for personnel teaching VV-01, and ANG AFECTI only. AMC personnel maintaining NVGs will attend.
7. MAJCOM Functional Managers may waive this requirement based on training capability.
8. This course only applies to instructors who train aircrew operating helicopters.
9. Required for units supporting AFSOC units. Refer to AFI 11-410 for additional guidance as applicable.
10. Mandatory for ANG 9-levels.
11. (Added) HQ PACAF waives all mandatory training for AFECTI's in Korean units.

4.3. (Added-PACAF) PACAF specific guidance:

4.3.1. (Added-PACAF) Third Party Certification:

4.3.1.1. **(Added-PACAF)** Third Party Certification is an evaluation conducted by personnel other than the trainer of the task and evaluates each step in the T.O. for the given task. Not applicable to AFRC.

4.3.1.2. **(Added-PACAF)** Third party evaluations are only required on the following items: parachute assemblies (Inspect, Pack, assemble/disassemble, and Rig 4-line Release); Night Vision Goggles (Maintain); Radio Inspection (Maintain, Update, Load, Transfer, Almanac and Register); Beacon Inspection (Maintain and Register); Multi-place life rafts and slides (Inspect and Pack); Aircrew Contamination Control Area (Setup); Scot Release (Inspect and Install); Arms Room Attendant; and Clearing Barrel Supervisor. Not applicable to AFRC.

4.3.1.3. **(Added-PACAF)** Third party evaluations are required on the above items during initial training (and prior to submission of skill level upgrade action) and at least every 24 months to maintain qualification on those specific equipment items. Trainers will utilize AF Form 803 (Computer generated form) to document all task evaluations. Not applicable to AFRC.

4.3.1.4. **(Added-PACAF)** Following successful task evaluation, task evaluator will place initials in the certifier column of the CFETP.

4.3.2. **(Added-PACAF)** Reevaluate all newly assigned personnel, including military, civilian and contractor equivalent, in previously certified areas prior to assigning personnel to inspect and maintain AFE.

4.3.2.1. **(Added-PACAF)** The AFES must ensure the use of approved USAF ACCA procedures. Approved procedures are located on the USAF AFE Community of Practice (CoP) Website. The wear of the ground crew ensembles by AFE personnel is mandatory and this evaluation may be accomplished as a group event to maximize "Real World" intent and ensure a "hands-on" approach.

4.3.3. **(Added-PACAF)** The AFES will ensure that all 1POX1 (or equivalent) personnel who work on aircraft are trained in maintenance documentation. Document training on appropriate forms.

4.3.4. **(Added-PACAF)** AFE personnel servicing aircraft equipped with ejection seats will receive egress training IAW AFI 21-112.

4.3.5. **(Added-PACAF)** Ensure unit training manager conducts SAVs for the AFE sections as required by AFI 36-2201.

Table 4.1. (PACAF) AFE PERSONNEL TRAINING REQUIREMENTS

COURSE TITLE	1P031	1P051	1P071	1P091	AFECTI	T1P0X1	FEO
Aircrew Flight Equipment Apprentice, J3ABR1P031 003	M						
Combat Survival Training, S-V80-A (Note 5)	D	D	D	D	D	D	M
Water Survival School – Parachuting, S-V86-A (Notes 1 & 5)	D	D	D	D	D	D	M
Arctic Survival Training, S-V87-A	D	D	D	D	D	D	D
Water Survival School Non- Parachuting, S-V90-A (Note 5 & 10)	D	D	D	D	D	D	M
Academic Instructor Course, MAIS001 (Note 4) (Added-PACAF) Note 11				D	M	M	
Night Vision Goggles Instructor Course (Note 6)					D	D	
Maintenance of Panoramic Night Vision Goggles (PNVG), J7AZT1P051 0G1A (Note 3)	D	D	D	D	D	D	
Maintenance of Joint Helmet Mounted Cueing System (JHMCS), J7AZT1P051 0J1A (Note 3)	D	D	D	D	D	D	
Maintenance of Combat Survivor Evader Locator (CSEL) radio, J7AZT1P051 0C1A (Note 3)	D	D	D	D	D	D	
Trainer for Combat Survivor Evader Locator (CSEL) radio, J7AZT1P051 0C2A (Note 3)	D	D	D	D	D	D	
Contingency Wartime Planning Course, MCADRE002			D	D			
Introduction to Personnel Recovery, PR101	D	D	D	D	D	D	D

USAF Life Sciences Equipment Investigation Course, L3AZR1T171 0L1A			D	M	D	D	M
Physiological Training (Notes 2 & 7) (Added-PACAF) Note 11	D	D	D	D	M	D	M
Airborne (Parachutist) Course, L5AQA1XXXX 0A1A	D	D	D	D	D	D	D
USAF Underwater Egress Training, S-V84-A (Note 8)	D	D	D	D	D	D	D
Static Line Parachute Systems (MC-1), J3AZR2A754 0M1A (Note 9)	D	D	D	D			
Static Line Parachute Systems (MC-6), J7AZR1P051 0S1A (Note 3 & 9)	D	D	D	D			
Ram Air Parachute Systems (MC-4/5), J3AZR2A754 0R1A (Note 9)	D	D	D	D			
Automatic Ripcord Release Assembly (8600F6), J5AZA11A754 0F6A (Note 9)	D	D	D	D			
Emergency Medical Technician					D	D	
Water Safety Instructor Training					D	D	
AFE Program Managers Course 3J5ACC1P0X1 000 (Y120004)			D	D			D

NOTE: Lists all Air Force AFE mandatory and desirable training. MAJCOMs will supplement this table with their unique requirements. Acronyms: AFECTI is AFE Continuation Training Instructor, and FEO is Flight Equipment Officer.

LEGEND: M = Mandatory; D = Desirable

Chapter 5

AIRCREW FLIGHT EQUIPMENT CONTINUATION TRAINING (AFECT)

5.1. Purpose. 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 passengers to refresh and enhance their proficiency and knowledge in all AFECT events. This chapter establishes specific requirements and applies to all AFECT Instructors (AFECTI), aircrew and personnel who fly. Training equipment will be configured to mirror operational equipment and all training will be realistic, hands-on and student centered to the maximum extent possible. This is the standard method for developing aircrew proficiency. AFECT will be conducted in a distraction-free facility/environment.

5.2. Responsibilities:

5.2.1. AFECT will be conducted IAW [Table 5.1](#) of this instruction. MAJCOMs will supplement this instruction to tailor AFECT courses to fulfill their specific requirements. The 361 TRS/TRR will update their AFE Air Force Master Lesson Plans (AFMLP) based on current safety information provided by the Air Force Safety Center and MAJCOMs. AFE Superintendent/FEO, upon notification from their MAJCOMs, will download the update information from the AFE AFMLP CoP website: <https://wwwd.my.af.mil/afknprod/ASPs/CoP/OpenCoP.asp?Filter=AE-OP-00-01>.

5.2.2. AFECT instructors may be an FEO, qualified instructor aircrew, or AFE (1POX1) training instructor. MAJCOMs and ANG units will supplement this instruction with requirements for assigning and certifying AFECT instructors.

5.2.2.1. Emergency egress training will be taught by a FEO (rated officer) or by an appointed rated officer and qualified instructor aircrew designated in writing by the group FEO. **EXCEPTION:** Civil service and contractor equivalent may conduct AFECT course(s) if specifically hired for that purpose and ANG AFECTIs.

5.2.2.1.1. **(Added-PACAF)** AFE Continuation Training Instructors (AFECTI) (including C-12, C-37 and C-40) must be recommended and appointed by the commander to include AFEO and AFES. AFE personnel will not teach ESA egress with the exception of Air National Guard units. The AFES can provide certification if the FEO is not available to certify additional pilots.

5.2.2.1.2. **(Added-PACAF)** AFES will perform initial certification of FEO and AFECT instructors using objectives defined in the Instructor Guides (IG). AFES will recertify all instructors (a minimum of one class) not to exceed 18-month intervals. All instructor evaluations will be documented using IMT AETC 281, *Instructor Evaluation Checklist*. ANG organizations can allow full time AFE Supervisors to evaluate AFE, CTI's. Not applicable to AFRC.

5.2.2.1.3. **(Added-PACAF)** All heavy type aircraft instructor aircrew members will be considered egress certified instructors. The AFE will be responsible to ensure a current syllabus is used.

5.2.2.1.4. **(Added-PACAF)** . The following are authorized to teach the courses listed in Table 5.1.

AFECTI, SERE: LL01, LL04, LL03, LL06 (NON EJECTION ONLY)

FEO: LL02, LL03, LL05

Enlisted Aircrew: LL03

5.3. AFECT Event Descriptions. Lead Commands, IAW AFD 10-9, *Lead Operating Command Weapon Systems Management*, will be OPR for developing core curriculum for each of the following blocks of instruction. AFECT event instruction may be consolidated as long as curriculum requirements are met and individual events are tracked by the designated identifiers in Aviation Resource Management System (ARMS). Lead commands will provide AFECT event guidance in applicable AFI 11-2MDS-series, Vol 1 publications.

5.3.1. Aircrew Flight Equipment Familiarization (LL01): One time event, per base assignment, conducted prior to the first flight at home station to familiarize aircrew members with local AFE items availability, issue, use, pre-flight, and post-flight procedures. This training will be provided for subsequent re-assignments to the same base.

5.3.1.1. **(Added-PACAF)** LL01, initial familiarization with flight equipment will be combined with the initial LL06, Aircrew Flight Equipment training. Both courses may be conducted concurrently with SS01, Local Area Survival (SERE will instruct SS01 requirements).

5.3.2. Emergency Egress Training, Ejection Seat (LL02): Evaluates aircrew and passenger ability to demonstrate proficiency in air and ground emergency egress/ejection procedures. In aircraft with multi-crew ejection seat capability, stress importance of aircrew coordination actions in emergency situations. Ensure aircrews are aware of their responsibilities for conducting safety and passenger briefings IAW AFI 11-202, Vol 3.

5.3.3. Emergency Egress Training, Non-Ejection Seat (LL03): Evaluates aircrew and passenger ability to demonstrate proficiency in air and ground emergency egress procedures. Stress the importance of aircrew coordination, aircrew and passenger responsibilities and use of appropriate emergency egress equipment. Ensure aircrews are aware of their responsibilities for conducting safety and passenger briefings IAW AFI 11-202, Vol 3.

5.3.4. Aircrew Chemical Defense Training (ACDT) (LL04): An academic and equipment training session in which the aircrew member demonstrates and performs donning, doffing, and buddy dressing procedures using either the first or second generation ACDE or Aircrew Eye/Respiratory Protection (AERP) equipment. This training also includes information on hazards and limitations of wearing the equipment properly and improperly, preflight procedures, aircraft integration, and parachute descent emergency procedures. Each aircrew will demonstrate procedures during their initial class; subsequent classes require a minimum of 10% of aircrew participants to dress out and demonstrate ACCA decontamination processing procedures.

5.3.5. Egress Training with ACDE (LL05): Evaluates the aircrew's ability to demonstrate proficiency in the use of primary as well as secondary air and ground egress procedures while wearing ACDE. Training will stress the unique changes in procedures to include added difficulties aircrew would and could experience as a result of wearing ACDE.

5.3.6. Aircrew Flight Equipment Training (AFET) (LL06) (formerly Aircrew Life Support Equipment [ALSE] Training): 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. 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.

5.3.7. With the exception of ARC, AFMC, and AFSPC units, which do not have SERE (1TOX1) personnel assigned, AFE sections are not authorized or manned to conduct the Code of Conduct/SERE training outlined in AFI 16-1301, *Survival Evasion Resistance Escape (SERE) Operations*.

5.3.7.1. **(Added-PACAF)** SERE Training events SS01 through SS08 are the responsibility of the wing or group SERE Specialist. AFE instructors will not participate in Resistance Training (RT) refresher training (SS03 Conduct After Capture and SS07 High Risk of Capture). If SERE Specialist is unavailable to train these courses, coordinate this training with the PACAF SERE Functional Manager through PACAF/A3TC.

5.3.8. **(Added-PACAF)** AFES will ensure all types of AFE equipment are available and presented during LL06. Perform TCTO or modifications on all training equipment to ensure it mirrors and functions the same as operational equipment.

5.3.9. **(Added-PACAF)** If AFE “LL” event objectives are taught and met during SS events, units are authorized to give credit for the LL event, as long as objectives are taught at the same intervals. To maximize course and aircrew time availability, AFES will review all local AFECT Instructor Guides and ensure objectives and information is not repeated in other courses, such as in SERE events (SS Courses) or CE Readiness and Emergency Management events (ground crew chemical defense). The AFES will coordinate with other functional areas to ensure objectives are taught in appropriate course(s).

5.4. Formal Training Requirements:

5.4.1. All aircrew members must attend formal training requirements as identified in AFI 16-1301.

5.4.2. All AFECT instructors must meet the minimum formal training requirements contained in **Table 4.1** of this instruction and be assigned using guidelines established by respective MAJCOMs.

5.4.3. To obtain formal supplemental course allocations for AFE personnel, forward the full name, rank, Social Security Number (SSN), and organization of personnel requiring training to the appropriate MAJCOM AFE focal point at least 60 days in advance of the requested training date. AFRC and ANG will request quotas IAW AFRC and ANG procedures.

5.4.3.1. **(Added-PACAF)** Requests will be forwarded to MAJCOM NLT 1 November each year.

5.4.4. The group FEO or AFE superintendent will control and manage the wing’s AFE formal supplemental course allocations. Cancellations or substitutions will be accomplished by contacting the appropriate MAJCOM or ANG AFE focal point not later than 30 days prior

to class start date. Return all allocations that cannot be used to the appropriate MAJCOM or ANG AFE focal point for redistribution at least 30 days prior to class start date.

5.5. AFECT Requirements:

5.5.1. Minimum Training Requirements. **Table 5.1** of this instruction specifies the required AFECT events and frequencies for aircrew members and passengers.

5.5.2. Failure to accomplish AFECT at the required intervals IAW AFI 11-2MDS-series, Vol 1/Ready Aircrew Program (RAP) tasking memo, will result in grounding or non-combat mission ready status.

5.5.3. If an aircrew member, current in all AFECT events, is TDY to perform flying duties to a location where a training capability does not exist and the individual becomes due in an AFECT event, training must be accomplished before first flight at home station. AFRC and ANG FMs will determine time frame required to complete training upon arrival at home station.

5.5.4. Emergency Egress and Parachute Descent Training (PDT) should be given concurrently when practical (ejection or non-ejection aircraft).

5.5.4.1. **(Added-PACAF)** For non-ejection aircraft this training may be given during LL06 if the training environment permits. The SERE Specialist will provide Emergency Parachute Training as directed by AFI 16-1301. See AFI for specific objectives.

5.5.5. Flight Surgeons will receive AFECT at frequencies determined IAW MDS-specific guidance.

5.5.5.1. **(Added-PACAF)** If not covered by specific MDS guidance, flight surgeons will receive egress once every 90 days on primary assigned aircraft. The FEO may waive this requirement up to 180 days for those flight surgeons who demonstrate proficiency in the aircraft on a case-by-case basis. Heavy aircraft unit flight surgeons will follow MDS aircrew member requirements.

5.5.6. Aircrew members arriving PCS or visiting aircrews, such as those assigned to the inspector general, test squadrons, etc., are not required to re-accomplish egress or PDT if source documentation of currency can be obtained (e.g., ARMS) and they are current in the assigned aircraft. However, training on local unit specific AFE and rescue requirements will be accomplished.

5.5.7. Aircrew members previously qualified in a given ejection seat equipped aircraft and currently in transition to a different model of the aircraft, or undergoing upgrade training in the same type of aircraft, may receive egress training at the regular interval from date last accomplished, if the escape systems and procedures are the same in both aircraft models.

5.5.8. Aircrew members in transition from one type of ejection seat equipped aircraft to another and awaiting a Fighter Training Unit (FTU) slot will receive Emergency Egress and PDT at intervals determined by respective MAJCOM.

5.5.9. Student aircrew members assigned to an FTU will receive emergency egress and PDT training IAW applicable syllabus.

5.5.10. Initial and periodic ACDE training will be conducted IAW appropriate 11-2MDS-series, Vol 1 publications, this instruction, applicable TOs, and approved AFMLPs.

5.5.11. An aircrew member may be credited with ACDT (LL04) during local operational readiness exercises provided all AFECT requirements and objectives are satisfied (i.e. crewmember donned chemical defense ensemble and subsequently processed through ACCA).

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

5.6.1. The group FEO or AFE superintendent, with assistance from the local safety office, will ensure ORM or other risk management programs or techniques are fully implemented, documented in unit lesson plans (LP), and tailored to their specific operation and location for all AFECT events.

5.6.2. The AFE superintendent will develop and publish an Emergency Action Plan (EAP) for use during any training event where injury is likely, (e.g., AFE class if signal flares are activated). The EAP will be included in the unit LP, briefed by the lead instructor prior to each training event, and understood by every instructor and student prior to event start.

5.7. Passenger and Incentive Flyer Training:

5.7.1. Passengers scheduled for flight aboard ejection seat equipped aircraft will receive, as a minimum, emergency egress, PDT, and AFE training no earlier than 72 hours prior to flight. If the 72 hours are exceeded before flight, training will be re-accomplished. Emergency egress training includes cockpit familiarization, use of oxygen/communication controls and switches, and manual bailout procedures training, if applicable.

5.7.1.1. Incentive/FAM riders flying over water beyond gliding distance to land will also receive water survival academics and hands on training with life preservers/life rafts.

5.7.2. Non-rated personnel who fly occasionally to perform official duties (e.g., enroute ground support, security, etc.) will receive emergency egress, PDT, and AFE training at intervals determined by respective MAJCOM.

5.7.2.1. **(Added-PACAF)** These individuals, to include members in casual status awaiting pilot training, aerospace physiologist, flying maintenance personnel, intelligence personnel, combat camera and developmental/test engineers may be placed on a 90 day currency after meeting the following requirements: Members must first complete egress class as applicable to the MDS a minimum of three times during a 90 day period. Member must complete AFECT. After the above two conditions are met, the FEO will evaluate/validate the members proficiency and forward a memorandum to the operations group commander (or equivalent) recommending the member be placed on a 90 day currency for the MDS specific egress training and AFECT. Group CC is approval authority for the 90 day currency. Not applicable to AFRC.

5.7.2.2. **(Added-PACAF)** Aircrew scheduled to fly on aircraft other than their primary airframe are only required to perform hands-on training on unique aircraft differences. **EXAMPLE:** If an F-16 pilot is scheduled for a sortie on a B-1, F-15, etc. they must perform hands-on egress training.

5.7.3. Passengers scheduled for flight aboard non-ejection seat equipped aircraft will be briefed on emergency procedures and AFE as depicted in appropriate aircraft passenger

briefing guides. The aircraft commander or their designated representative may conduct this briefing.

5.7.4. **(Added-PACAF)** For taxi rides see AFI 11-401, *Aviation Management*.

5.8. Training Documentation:

5.8.1. All completed AFECT events will be documented on AF IMT 1522, *ARMS Additional Training Accomplishment Report*, or equivalent and maintained as a record of class attendance IAW AFI 37-139. Only those event identifiers shown in **Table 5.1** of this instruction will be used to identify AFECT events.

5.8.2. Upon completion of training, one or more rosters will be signed by the instructor and forwarded to appropriate office for input into ARMS. The OSS AFE Flight staff will keep a duplicate copy of the rosters on file.

5.8.3. Instructors will provide written documentation to individuals who are from another unit (i.e., Inspector General, HHQs staff, and visiting aircrews) so their records can be updated at home station.

5.8.4. FTU and Basic Fighter Training (BFT) student rosters will be maintained until graduation.

5.8.5. AFE is not responsible for maintaining ARMS or managing and tracking aircrew training status for AFECT events in ARMS.

5.9. Training Aids and Equipment:

5.9.1. Emergency ground and air egress and ejection seat training will be accomplished using the appropriate Egress Procedures Trainer (EPT) when available or the actual aircraft only when an EPT is not available. Non-ejection seat egress training will be conducted using actual aircraft to the maximum extent possible.

5.9.2. Units may use the actual aircraft installed ejection seat for egress training when designated training devices are not available provided all ejection seats are made safe by qualified egress personnel.

5.9.3. For ACDT and egress training, aircrew members are required to wear all clothing and AFE items typically worn during contingency operations unless specifically prohibited by this instruction.

5.9.4. AFECT instructors will inspect training devices and aids prior to use to ensure they are properly configured, safe, and operational for training. The AFE superintendent or their designated representative will perform annual inspections of all AFE training devices and aids to ensure they are current and safe for training use. This includes displays, ACDE, AFE, and personnel lowering devices. Inspections will be documented appropriately.

5.9.4.1. **(Added-PACAF)** EPT inspections (prior to use, monthly, annually) will be documented in AF IMT 781, or equivalent (i.e. ALSMS, AFTO Form 244).

5.9.5. Training 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. When training equipment does not exist (i.e., night vision devices, combat survival radios, etc.), MAJCOMS

may designate the use of operational equipment for training as long as the training does not damage or destroy the integrity of the equipment.

5.10. Lesson Plans Development Guidance:

5.10.1. AFECT Air Force Master Lesson Plans. AFMLPs are documents developed to prescribe instructional requirements, teaching points, and instructor-student activities essential to the accomplishment of training objectives for all AFECT. AFMLPs are designed to include the minimum training requirements and are essential for supervisors and instructors to ensure lesson objectives are completed.

5.10.2. Only approved AFMLPs developed by the 361 TRS/TRR AFE CDC Writer, Sheppard AFB, TX will be used to conduct AFECT. The AFMLPs, developed by the 361 TRS/TRR, are complete and ready to be downloaded once they have been approved by Lead MDS MAJCOM. Units should delete information from the AFMLPs that does not pertain to their mission or unit. MAJCOMs will use AFMLPs developed by the 361 TRS/TRR. Furthermore, ARC units that have AFECTIs who are solely responsible for conducting code of conduct continuation training events will only use lesson plans approved by AFRC/A3TS or NGB/A3OS.

5.10.3. The FEO or AFE superintendent must tailor down the AFMLP and produce an AFECT Master Lesson Plan (MLP) to meet their wings mission needs. AFECT MLP are unpersonalized lesson plans used for control and standardization within an organization or unit that has been developed from the AFMLP by deleting unnecessary information based on a unit's equipment or MDS. Group FEO/AFE superintendents who identify a need for a new AFMLP will forward request to MAJCOMs or Lead MDS MAJCOM for review of new requirement(s). Approved requests will be forwarded, and all data from Subject Matter Expert (SME) for development of AFMLP to 361 TRS/TRR AFE CDC Writer, Sheppard AFB, TX.

5.10.4. AFECT LP. Lesson plans are documents developed from the AFECT MLP and prepared for use by each instructor to organize and present information. A personalized lesson plan contains information to aid the instructor. This is accomplished by writing personal instructional notes and material on the right-hand side of the AFECT MLP. The lesson plan must be validated with approved reference materials that can be produced upon request.

5.10.5. All AFE MLPs and AFECT LPs used to conduct AFECT will be reviewed annually by the group FEO or AFE superintendent. Annual reviews will be documented as directed by individual MAJCOMs.

5.10.5.1. **(Added-PACAF)** Annual reviews will be documented on lesson plan cover page.

5.10.6. Higher headquarters correspondence (e.g., messages, Flight Crew Information Files [FCIF], etc.) directing the inclusion of information not covered in AFECT AFMLPs or lesson plans will be added as directed by the 361 TRS/TRR.

5.10.7. Designated Lead MAJCOM MDS SMEs will assist the 361 TRS/TRR in validating AFMLPs biennially during the World Wide AFE Workshop MAJCOM breakouts. If more frequent reviews are deemed necessary; the requesting MAJCOM will coordinate and fund

for the CDC Writer to attend MAJCOM conference to accomplish the review with SMEs. The 361 TRS will notify the MAJCOMS of any changes to the AFMLPs and group FEO/AFE superintendent will update their MLPs upon notification by their MAJCOMs.

Table 5.1. AFECT REQUIREMENTS

ARMS EVENT IDENTIFIER	COURSE TITLE	EVENT FREQUENCY
LL01	Aircrew Flight Equipment Familiarization	Initial (Notes 1, 3)
LL02	Emergency Egress Training, Ejection Seat (Note 6)	(Notes 3, 5)
LL03	Emergency Egress Training, Non-Ejection Seat (Note 6)	(Notes 3, 5)
LL04	Aircrew Chemical Defense Training (ACDT)	(Note 5)
LL05	Egress Training with ACDE (Note 6)	Initial (Note 2)
LL06	Aircrew Flight Equipment (AFE) Training	(Note 5)

NOTES:

1. Accomplished before first flight at base of assignment.
2. Must be accomplished one time in assigned MDS aircraft before first flight using ACDE.
3. Grounding items: LL01, LL02, and LL03.
4. AFECT courses may be combined as long as all required training is accomplished.
5. Training frequencies are identified in AFI 11-202, Volume 1, *Aircrew Training*, and AFI 11-2MDS-series, Vol 1.
6. Qualified instructor aircrew are only allowed to teach LL02, LL03, and LL05 and must be current in the event being taught.

5.11. (Added-PACAF) AFECTI Certification and Recertification Procedures:

5.11.1. **(Added-PACAF)** As a minimum, qualification training will include attendance at applicable courses specified as mandatory in Table 4.1., and an evaluation by the FEO or AFES of a "start-to-finish" presentation of each event or specific area of an event to be certified to conduct. This includes all instructional materials and procedures for the event or specific area to be certified. Officers who instruct are not required to attend AIC or equivalent. ANG waiver is applicable to those that meet criteria set forth in the waiver.

5.12. (Added-PACAF) AFECTI Certification. The FEO and AFES will use the appropriate lesson plan to perform instructor evaluations. ANG organizations can allow full time AFE Supervisors to evaluate AFE, CTI's.

5.12.1. **(Added-PACAF)** Initial certifications are required for each event. Subsequent instructor evaluations are required for only one event.

5.13. (Added-PACAF) AFECTI. Enlisted, Officer and civilian instructor certifications will be documented on IMT AETC Form 281, *Instructor Evaluation Checklist* and IMT AF Form 1098, *Special Task Certification and Recurring Training* or equivalent electronic tracking system IAW AFI 36-2201 V3, *Air Force Training Program On the Job Training Administration*. Documentation of FEO and qualified aircrew member certifications to conduct AFECT will be by a memorandum signed by the FEO or AFES.

Chapter 6

AUTOMATED LIFE-SUSTAINING EQUIPMENT RECORDS

6.1. Overview. The ALERTS and APWEB are automated global data management systems developed to allow “total asset visibility” of AFE items and associated documentation processes. ALERTS is capable of supporting the entire AFE community to automate the data management processes for most inspection, training, supply, and administration documents. The vision of ALERTS is to provide the ability and means of improving the performance methods and administration needs of the AFE community and support agencies using current COTS hardware, software, and the military (.mil) network.

6.2. Automated Document and Management Systems:

6.2.1. ALERTS. Once fully fielded, ALERTS will be used by all AFE functions within the Air Force IAW this chapter and MAJCOM supplements thereto. ALERTS Computer Based Training (CBT) is a mandatory training requirement prior to any individual using ALERTS in all organizations.

6.2.1.1. **(Added-PACAF)** ALSMS/FERMS is the designated data management system for use by PACAF.

6.2.2. ALSMS. ALSMS is a management tool used by AFE personnel. AFE units are authorized to continue using the ALSMS program to best suit their needs until they are designated by their MAJCOMS to be upgraded to ALERTS. Units tracking AFE items with the ALSMS program are not required to duplicate the data maintained in the computer on status boards, shop inspection cards, or forms. AFE superintendents will standardize equipment tracking methods within their respective groups.

6.2.3. Aircrew Protection Website (APWEB) can be accessed at: <https://private.amc.af.mil/a3/a37t/dot/DOTL/UnitData/UnitDataHomeFrame.cfm>. All units that are not using ALERTS will use APWEB to document their end item data IAW the APWEB user manual. Each unit will provide all relevant data on each item to include; contract numbers, lot numbers, dates of manufacture, dates of expiration, back order quantities, off-base requisition numbers, and quantities deployed. The data contained within this site must be complete, verified, and validated by their respective MAJCOM prior to the unit being upgraded to ALERTS.

6.2.3.1. **(Added-PACAF)** Stock records will have all pertinent data input into ALSMS (i.e. Contract Numbers, Lot Numbers, Dates of Manufacture, Installation, and Expiration, and Serial Numbers if applicable).

6.3. Responsibilities:

6.3.1. Air Force ALERTS Office of Primary Responsibility (OPR). HQ AMC is the primary OPR for the development, implementation, maintenance, and certification of ALERTS. The OPR will:

6.3.1.1. Coordinate with the contract support team, AFE MAJCOM FMs, and the Aircrew Performance Executive Council (APEC).

6.3.1.2. Oversee the support contracts and serve as the Contracting Officer Technical Representative (COTR) to resolve funding, project, and personnel issues.

6.3.1.3. Sponsor and assist the support team representatives for ALERTS throughout the recertification process.

6.3.1.4. Coordinate with the Task Manager (Contractor Project Manager) to manage requests for enhancements to ALERTS.

6.3.1.5. Establish Memorandum of Agreement between HQ AMC, 77 AESG, and HQ USAF for ALERTS liaison position at 77 AESG.

6.3.2. 77 AESG Sustainment Integrated Process Team Personnel (648 AESS/TAL). 648 AESS/TAL personnel in conjunction with the contractor's liaison position at 77 AESG will:

6.3.2.1. Manage, input, and maintain work unit code and national stock number support data for AFE items except for COTS/NDI unless formally approved in accordance with the established COTS/NDI approval process.

6.3.2.2. Coordinate on all aspects of provisioning for sustainment of AFE items (i.e., illustrated parts breakdown [IPB] and or assembly definitions, etc.).

6.3.2.3. Notify the ALERTS liaison and or the Air Force ALERTS OPR of the TCTO to be updated in the inspection definition prior to release of any TCTO.

6.3.2.4. Extract, analyze, and make decisions based on data extract reports.

6.3.3. AFCFM, MAJCOM and ANG FM, NAF. The AFCFM, MAJCOM and ANG FMs, and NAFs will:

6.3.3.1. Extract, analyze, and make decisions based on data extract reports.

6.3.3.2. Extract data for specialized high-level reports, (i.e., Annual Report to Congress for ACDE equipment, AFCAIG/CPFH program, etc).

6.3.3.3. Establish an ALERTS POC within their command who will serve as the primary conduit to the Air Force ALERTS OPR and their units.

6.3.3.4. Certify all AFCAIG/CPFH items loaded in ALERTS.

6.3.4. AFE Superintendents/Supervisors. Through ALERTS, AFE superintendents/supervisors will:

6.3.4.1. Ensure documentation quality control.

6.3.4.2. Input data through specialized program management modules, (e.g., supply, quality control, etc).

6.3.4.3. Prepare equipment, personnel, aircrew, and aircraft for contingency operations through ALERTS.

6.3.4.4. Extract, analyze, and formulate decisions from reports in preparation of equipment, training, personnel, aircrew, and aircraft for daily and contingency operations.

6.3.4.5. Validate that assigned personnel have completed the CBT prior to authorizing the use of ALERTS.

6.3.4.6. AFE superintendent will serve as the group OPR and the unit's overall POC for ALERTS issues and is responsible for all unit actions. And, will serve as the primary conduit to the MAJCOM ALERTS OPR.

6.3.5. AFE Technician. Through ALERTS, the AFE technicians will:

6.3.5.1. Document the results from AFE item inspections to include all routine and TCTO inspections and modifications.

6.3.5.2. Document results from AFE items, supply inventories, and transactions.

6.3.5.3. Document aircraft and AFE item and maintenance actions.

6.3.5.4. Document aircraft's AFE items configuration loading and unloading.

6.3.5.5. Document corrective actions from quality control inspections.

6.3.5.6. Ensure training records are correct.

6.4. ALERTS General Areas:

6.4.1. Requesting Modifications or New Capabilities:

6.4.1.1. Purpose. ALERTS serves as the single focal point program in the documentation of all AFE processes. To meet the rapidly changing needs of the AFE community, the following process will be used to manage requests for modifications and new ALERTS capabilities outside of the scope of the current support contract. This process is described below.

6.4.1.2. Changes to Policy/Procedure Documents and or ALERTS Processes. The identifying user will accomplish the following:

6.4.1.2.1. Provide a written proposal of the complete suggested process to their MAJCOM FM.

6.4.1.2.2. The MAJCOM FM will validate the need and forward the proposed process to the Air Force ALERTS OPR.

6.4.1.2.3. The Air Force ALERTS OPR will forward the proposal to the support contractor for evaluation.

6.4.1.2.4. The support contractor will evaluate the proposed process and determine the technical feasibility.

6.4.1.2.5. If the need is technically feasible, the Air Force ALERTS OPR will validate and forward to all using commands for their input. MAJCOM ALERTS POCs have 10 working days to evaluate proposals. Negative replies are required. If the need applies to only the proposing command, the Air Force ALERTS OPR will validate the need and proceed to the next step.

6.4.1.2.5.1. If all MAJCOMs' POCs do not agree, the proposal will be forwarded to HQ USAF/A3O-AT for final resolution.

6.4.1.2.5.2. If all ALERTS MAJCOMs' POCs agree, the support contractor will determine the cost for development and implementation.

6.4.1.2.6. Once the technical feasibility and cost analysis are received, the proposal will be forwarded to the APWG and APEC for final determination and a funding solution.

6.4.1.2.6.1. If approved and funding has been secured, the Air Force ALERTS OPR will initiate the development and implementation process.

6.4.1.2.6.2. If disapproved, the submitting command will be notified by the Air Force ALERTS OPR and or the APEC of their decision and rationale for disapproval.

6.4.2. Software Problem Report (SPR):

6.4.2.1. Users will submit SPRs through the established procedures contained in APWEB or ALERTS websites. Users should contact their local Work Group Managers to validate there is not connectivity problems locally before contacting the help desk or submitting an SPR. There are 3 types of SPRs, which are described as follows: **NOTE:** The inability to connect or a slow response from the APWEB or ALERTS servers does not constitute a problem with these systems.

6.4.2.1.1. Category 1. An identified requirement is nonfunctional.

6.4.2.1.2. Category 2. An identified requirement is nonfunctional, but there is a valid work-around to accomplish a required task.

6.4.2.1.3. Category 3. Administrative or cosmetic only and do not affect the function of the programs.

6.4.2.2. Users will fill out all required information on the SPR submittal form to include detailed descriptions of the problem when required.

6.4.3. AFE Automated Information Technology (AIT) Barcode Marking Standard. All AFE units with acquisition authority will refer to their responsibilities paragraphs contained within this instruction and [Attachment 2](#) for implementing the AF AFE AIT barcode marking standard for AFE supplies.

6.4.4. Standards.

6.4.4.1. Nomenclature Standard. To ensure a common standard for nomenclatures within ALERTS, units will use the technical order IPBs or manufacturer's manuals when establishing items. Items or equipment not addressed in IPBs, formal technical orders, or manuals will be assigned a nomenclature by 77 AESG or 642 CBSG.

6.4.4.2. Air Force Kit/Aircraft Configuration Naming Standards. To ensure global data reporting capability, units will use the identified standards contained within ALERTS. Request additional templates IAW [paragraph 6.4.1](#) of this Instruction.

6.4.4.3. Item Supply Detail Data. All relevant data on these screens will be tracked by all AFE units. If the data is not available units will use the standard established below for all unknown data fields.

6.4.5. Data Entry Standards:

6.4.5.1. Within APWEB, units attempting to enter data that is unavailable will use “UNK” for unknown text fields, and 01/01/1900 for unknown date fields. All unknown data fields that are not mandatory will be left blank.

6.4.5.2. Within ALERTS, all unknown data fields not mandatory will be left blank. For mandatory fields, units will use the APWEB standard.

6.4.5.3. All contract number and lot number entries must include the full contract and lot number and be entered into ALERTS exactly as they appear on the item. This will ensure there is no confusion when data is recalled.

6.4.6. LOGIN Standard for AFE Personnel and Aircrew. LOGIN standard is case sensitive and includes the last name, first initial, and last six numbers of individual’s SSN. AFE units must scan the one-dimensional bar code on the backside of the aircrew’s military identification card for the ALERTS login.

6.4.7. APWEB and ALERTS Data Protection; For Official Use Only (FOUO):

6.4.7.1. Reports generated from APWEB/ALERTS will be considered FOUO, unless otherwise marked, and must be protected IAW DoD and AF instructions.

6.4.7.2. Reports containing personnel data, i.e., SSN will have the privacy act statement affixed.

6.4.7.3. Aircraft tail number location in ALERTS must use the last six digits as the standard (*EXAMPLE:* 99-0011). This will allow full integration of the new automated forecasting system and the requirements established by 84 MUSG/GJ (OO-ALC) for properly tracking and forecasting time change items for replacement.

6.4.8. Configuration Data File (CDF) Process:

6.4.8.1. The CDF established for accountable equipment items will be maintained in AFEMS IAW AFMAN 23-110. Accountable and non-accountable equipment end item authorizations will be documented and maintained in APWEB/ALERTS. Air Staff, MAJCOMs, and 77 AESG when experiencing acquisition difficulties, may direct units to document authorizations and on-hand quantities within these programs.

6.5. ALERTS Operations Areas:

6.5.1. Aircraft Accident Data Records. Upon notification from a competent authority, the AFE superintendent, squadron system administrator, or AFE NCOIC will freeze all AFE records for equipment involved in a mishap. To ensure data fidelity for the safety review board, these records will remain frozen until such time as determined by the involved MAJCOM Staff Judge Advocate or delegated authority. Once authority has been granted, the AFE superintendent will notify the contractor help desk to unfreeze the records.

6.5.2. Data Review Requirement. AFE superintendents and NCOICs or designated individual will review APWEB and ALERTS to validate data accuracy every 180 days.

6.5.3. CTK Procedures. AFE specialized equipment used on the flightline will be marked and managed IAW AFI 21-101, *Aircraft and Equipment Maintenance Management*, and **Chapter 3** of this instruction.

6.5.4. Equipment Accountability. ALERTS specialized equipment will be marked and managed IAW AFI 33-112, *Computer Systems Management*.

6.5.5. ALERTS Data Record Transfer Process:

6.5.5.1. Units using ALERTS to transfer equipment, personnel, or aircraft records to other ALERTS enabled units will use the ALERTS electronic data transfer process.

6.5.5.2. Units using ALERTS to transfer equipment, personnel, or aircraft records to non-ALERTS enabled units will still use the ALERTS electronic data transfer process. However, the information will be stored under a general identified Personnel Accounting System (PAS) code until the receiving unit comes online with ALERTS. The sending unit will also provide paper copies of all required forms.

6.5.6. AF IMT 1297, *Temporary Issue Receipt*, Process. AFE units with ALERTS fully implemented can use ALERTS in lieu of the AF IMT 1297 to transfer responsibility of the item. MAJCOMs may implement more restrictive accountability procedures as required.

6.5.7. Contact Memory Button (CMB) Processes and Mounting. MAJCOMs will develop their own implementation process for units using the CMB.

6.5.8. Interaction with Mobility Inventory Control & Accountability System (MICAS). Air Staff or MAJCOM will provide the APWEB or ALERTS data associated with MICAS to data managers when requested through these programs.

6.5.9. Deployment and Multi-Command or Multi-Unit Operations:

6.5.9.1. Units will use the guidance in the ALERTS user and process manuals for these operations. Units who do not have any ALERTS specialized equipment or are not connected to the ALERTS site while deployed will refer to [paragraph 6.5.10](#) for documentation procedures.

6.5.9.2. Non-ALERTS units, or units not using CMB, which service multi-place aircraft will preposition a copy of all AFE items inspection records on the aircraft prior to all deployments.

6.5.10. Units will develop documentation procedures to update ALERTS data when connectivity is not available or if they do not have the necessary hardware to use ALERTS in the unconnected mode. This will include all maintenance actions, QA, and any other actions.

6.5.11. DoD, Air Force and AFTO Forms/IMT, and Other Documentation (NL555, *Battery Inspection Label*) Within the Sections/Shops. Units implementing ALERTS do not have to use serviceability tags to identify equipment in service, storage, or otherwise used unless specifically required in AFMAN 23-110 or required by Air Force technical orders. Units will use condition code tags when turning in equipment to supply IAW AFMAN 23-110. MAJCOMs may implement more restrictive accountability procedures to distinguish serviceability of equipment as required.

6.5.12. ALERTS will use a single type of inspection record for all AFE items when applicable.

6.5.13. AF Form 623 (Automated). ALERTS is the primary electronic equivalent authorized means to provide the capability to electronically track all AFE technician training. MAJCOMS will develop an implementation process for using the electronic ALERTS AF

Form 623. **NOTE:** TBA is an authorized AF Form 623 automated electronic equivalent alternative for those units that do not have access to ALERTS.

6.5.13.1. **(Added-PACAF)** PACAF units will use TBA for electronic AF Form 623.

6.5.13.1.1. Adopted Forms

AFTO IMT 22, *Technical Order Improvement Report and Reply*

AF IMT 55, *Employee Safety and Health Record*

AFTO Form 392, *Parachute Repack Inspection and Component Record*

AF Form 623, *Individual Training Record*

AF IMT 1000, *Idea Application*

AF IMT 1297, *Temporary Issue Receipt*

AF IMT 1522, *ARMS Additional Training Accomplishment Input*

AF IMT 2420, *Quality Control Inspection Summary*

AFTO Form 46, *Prepositioned Life Support Equipment*

AFTO Form/IMT 781A, *Maintenance Discrepancy and Work Document*

Chapter 7 (Added-PACAF)

AIRCREW CLOTHING AND EQUIPMENT

7.1. (PACAF) Purpose. This chapter establishes minimum aircrew clothing requirement and outlines minimum requirements for maintenance and inspection of aircrew flight equipment (AFE).

7.1.1. **(PACAF)** Ensure flying clothing is compatible with the mission, climate, and terrain features involved. When determining the proper clothing combination, the forecast surface chill factors and air temperatures should be considered for the duration of the flight to include departure, enroute, and training areas. AS 016 defines climatic zones in its preface and may be used as a source document for recommended winter wear.

7.2. (PACAF) Minimum Clothing Requirements. PACAF units will comply with the following clothing requirements.

7.2.1. **(PACAF)** Undergarments. Cotton or fire retardant undergarments are mandatory due to the added protection. Undergarments made of 100 percent nylon or polyester are not authorized during flight.

7.2.2. **(PACAF)** Flight Coveralls, Nomex®. To comply with the intent of AFI 11-202, Volume 3, *General Flight Rules*, and T.O. 14P3-1-112, *Maintenance Instructions Nomex® Flight Gear, Coveralls, Gloves, Jacket*, the outer layer of clothing will be of fire retardant material. Coveralls listed in T.O. 14P3-1-112, T.O. 14P3-1-131, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Aircrew Chemical-Defense Ensemble*, T.O. 14P3-5-61, *Operation, Service, and Maintenance Instructions Quick-Donning Anti-Exposure Flying Coverall Type CWU-16/P*, T.O. 14P3-5-81, *Operation and Maintenance Instructions With Illustrated Parts Breakdown, CWU-21 and 21A/P Anti-Exposure Suit*, and T.O. 14P3-5-91, *Operation and Maintenance Instructions With Illustrated Parts Breakdown, CWU-74/P, CWU-86/P (Technical Order forth coming) and OTS Flyer's Anti-Exposure Coverall*, are the only coveralls aircrew are authorized to wear during flight. Sleeves will be rolled down and closed at the wrist for maximum fire protection.

7.2.3. **(PACAF)** Flight Jackets. The unit commander determines seasonal requirements. Flying jackets listed in AS 016 and T.O. 14P3-1-112 are the jackets aircrew are authorized to wear during flight. Wear of the A-2 leather flight jacket is addressed in AFI 36-2903.

7.2.4. **(PACAF)** Flight Gloves. Nomex® flight gloves listed in AS 016 and T.O. 14P3-1-112 are the only gloves aircrew are authorized to wear during flight. As a minimum, aircrew are required to have gloves in their possession in case of emergencies. Gloves will not have fingers exposed, cut off, or modified in any manner.

7.2.4.1. **(PACAF)** If neoprene divers gloves are installed in survival kits or vests, ensure the size of glove accommodates all assigned aircrew. If individuals require a larger size outside the normal parameters, ensure the individual is provided the size required. Install these individually fitted gloves in the survival vest, or exposure suit/g-suit pockets when mission and weather requirements dictate the wear of these gloves.

7.2.5. **(PACAF)** Flight Boots. The primary aircrew boots, as authorized in AS 016, are the FWU-3/P, FWU-8/P and the lightweight model 700, 770, and 790 Belleville® Aircrew Boot.

Leather boots similar in style to some Danner® boots were found to meet minimum qualification requirements and are approved for flight. In addition, the Danner® Olympia and Ft. Lewis models are approved for flight noting the following risk: Danners® fail to meet commercial flammability requirements. When selecting boots for flight other than those previously listed, group commanders will consider the following factors: flame, fire and heat protection, traction on ice/wet surfaces, comfort and ankle stability during parachute landing falls. Lace-up zipper inserts may be used. Boots, flying, extreme cold, Sorrel Premium, Muklukas, as well as vapor barrier thermal are authorized for wear during winter flight operations at the discretion of the operations group commander (or equivalent). Extreme cold weather boots matrix will be provided to the operations group commander to aid in the decision making process.

7.2.6. **(PACAF)** Extreme Cold Weather Trousers, Flyers, Nomex® (CWU-18/P) and Cold Weather Coverall (CWU-64/P). These items are authorized for issue as a unit option.

7.2.6.1. **(PACAF)** Clothing authorized for Arctic Flights is listed in PACAF/A3T Memorandum, which is located on the HQ PACAF AFE Share point at.... This listing will be updated (with PACAF units concurrence) quarterly.

7.3. (PACAF) AFE Requirements. Only AFE approved as safe-to-fly will be issued, worn, installed or used for flight operations. All AFE will be sized, fitted, issued, inspected, maintained, modified, controlled and stored IAW applicable Technical Order (T.O.) guidance, approved commercial manuals, and applicable MAJCOM directives. PACAF units will perform inspections, sizing and fit checks IAW technical guidance. Fit checks will be documented in ALERTS/ALSMS or other AF approved data tracking system. The following specific guidance applies:

7.3.1. **(PACAF) Aircrew Helmets.** Aircrew helmets will be used as required and inspected and maintained IAW applicable 14P-series T.O.s.

7.3.1.1. **(PACAF)** All aircrew helmets will be subdued factory gray or blended to match the aircraft color scheme so as not to contrast or brightly reflect off inside of the canopy or cockpit glass. Subduing can be accomplished by application of paint or taping of helmet shells to blend with the aircraft exterior color. Subdued method is at the discretion of the unit commander.

7.3.1.2. **(PACAF)** Foreign students may use their own helmets if systems are compatible. However, continued use will depend on availability of maintenance procedures and replacement parts.

7.3.1.3. **(PACAF)** Only helmet visor housings and visor fabric covers may be customized with unit approved designs. Visor housings may only be customized using elastomeric film (decals), tape or equivalent materials. Designs must not interfere with visor operations, the EEU-series goggle top latch assembly, or the night vision goggle (NVG) mounting bracket. Designs will be obliterated by removing decals, painting over designs, or replacing visor housings or covers when necessary to comply with real world sanitization requirements.

7.3.1.3.1. **(PACAF)** Helmets used by the 18 AGRS may have the soviet red star affixed to the helmet. The soviet star will be removed prior to real world contingencies.

7.3.1.4. **(PACAF)** Helmets are required for PACAF aircrews for head protection during emergency bailout, crash-landing/ditching, performing some flight duties (e.g., flight engineer, loadmaster), for use with helmet mounted accessories (i.e., night-vision systems, nuclear flash protective devices, etc.), and as prescribed by applicable MDS flying publications or mission directives.

7.3.1.5. **(PACAF)** Aircrew helmets will be stored and maintained in the AFE section.

7.3.2. **(PACAF) Helmet Mounted Devices.** Helmets mounted devices (Joint Helmet Mounted Cueing System [JHMCS], NVGs, Nuclear Flashblindness Goggles, Laser Eye Protection & High Contrast Visors) will only be worn or used by aircrew members requiring them to perform specific missions. Inspection and maintenance of these devices will be accomplished IAW appropriate T.O.s and MAJCOM guidance.

7.3.2.1. **(PACAF)** AFE technicians will perform operational and intermediate level maintenance on aviators NVGs. Additionally; AFE personnel are responsible for issuing, fitting, inspection, maintenance, and storage of aviators NVGs only.

7.3.2.2. **(PACAF)** Aircrew will be trained by the flight surgeon on the ANVIS limitations and be tested to meet minimum visual acuity standards.

7.3.2.3. **(PACAF)** Where applicable, squadron commanders will ensure an area is designated for use by aircrew members to perform NVG preflight operations.

7.3.2.4.1. **(PACAF)** Units issuing ANVS goggles will have eye test lanes or 20/20 testers for aircrew preflight adjustments and will ensure AFE technicians are available to assist aircrews in preflighting/adjusting ANVS.

7.3.2.5. **(PACAF)** Units will place an inspection due date label on one of the NVG monocular housings.

7.3.2.6. **(PACAF)** Inspect thermal flash blindness devices.

7.3.2.6.1. **(PACAF)** Thermal Flash Protective Devices (TFPD). Required for all aircrews on SIOP missions. Either the MIL-G-635 or PLZT goggles at the wing commanders discretion will satisfy requirements for TFPD. On aircraft that are PLZT modified, it is recommended that the PLZT goggles be used.

7.3.2.7. **(PACAF)** Flash blindness goggle kits (MIL-G-635) will consist of one container, one complete pair of goggles, one KMU-219/P modification kit, and one monocular eye shield. Place a piece of shock absorbing material on the bottom of each container with goggles facing down. Protect the lens from scratches with a piece of flannel cloth, NSN 8305-00-656-1259, or equivalent. One monocular eye shield will be placed in a polyethylene bag and installed in each goggle container.

7.3.2.7.1. **(PACAF)** Attach a DD Form 1574 to each container to indicate date inspected and date due.

7.3.2.7.2. **(PACAF)** MIL-G-635 goggle kit quantities will be placed on the aircraft as listed in AFI 11-301V2 as a minimum. Goggles stored in PCKs to be used in conjunction with multiplace aircraft do not require the monocular eye patch or an AFTO Form 1574s attached to each storage case. Inspection data will be placed on the AFTO Form 1574 attached to the outside of the container.

7.3.2.8. (PACAF) EEU-series (PLZT) goggles will be inspected by AFE personnel as specified in the applicable TO. Inspections of PLZTs will be documented on the applicable AFTO form and each container will have a DD Form 1574 attached to the outside of the carrying case.

7.3.2.8.1. (PACAF) Each PLZT container will be modified to accommodate a monocular eye shield by cutting a 3/4 inch deep recess the size of the eye shield in the upper right portion of the lid cushioning material. Eye shields will be stored face down in the foam cut-out, and with a slight loop in the elastic string.

7.3.2.8.2. (PACAF) AFE technicians will ensure serviceability of the PLZT top latch helmet mount and power cable assemblies concurrent with the helmet inspections.

7.3.2.9. (PACAF) Aircrew Laser Eye Protection (LEP). Aircrews will receive hands-on training prior to their initial LEP flight. Training is defined in the LEP concept of operations. IAW AFI11-301V4.

7.3.2.10. (PACAF) HIGH CONTRAST VISORS (HCV). Approved cockpits are listed in 14P3 series TOs.

7.3.2.10.1. (PACAF) HCVs are authorized for daytime use only.

7.3.2.10.2. (PACAF) Do not wear HCVs during take-off or landing because yellow runway markings may disappear.

7.3.3. (PACAF) **Global Positioning System Receivers.** Units will inspect GPS IAW [Attachment 9 \(Added\)](#) of this supplement.

7.3.4. (PACAF) **Anti-G Garment.** Anti-G Garments are required during all flights in aircraft equipped with anti-G systems when 2 or more "Gs" are anticipated.

7.3.4.1. (PACAF) Anti-G garments will be worn on all ejection seat aircraft IAW MDS instructions. Navy and other services anti-G garments are not authorized in USAF aircraft.

7.3.4.2. (PACAF) CSU-Series Anti-G Garment. Aircrews required to wear anti-exposure suits as well as aircrew chemical defense ensembles will have a second anti-G garment fitted for use with these items. This does not apply to the CSU-17/P anti-G vest.

7.3.5. (PACAF) **Anti-Exposure Suits.** Only authorized and approved anti-exposure suits will be worn by aircrews and passengers.

7.3.5.1. (PACAF) Non-Ejection Seat Aircraft. Quick-don anti-exposure suits will be readily available for aircrew during overwater flights when the water temperature is 60 degrees Fahrenheit (F) (15.5 Celsius (C) or less.

7.3.5.2. (PACAF) Ejection Seat Aircraft. Constant wear anti-exposure suits will be worn by crewmembers of ejection seat aircraft on any preplanned overwater flight when the water temperature is 60F/15.5C or less. If the water temperature ranges between 60F (15.5C) and 51F (10.5C), and the local air temperature is 70F (21.2C) or greater, the unit commander may waive the requirement to wear the anti-exposure suit after considering the following factors:

7.3.5.2.1. **(PACAF)** Climate zone and existing weather throughout range of flights (reference T.O. 14P3-5-81/91).

7.3.5.2.2. **(PACAF)** Operational requirements.

7.3.5.2.3. **(PACAF)** Number and type of aircraft participating in sortie.

7.3.5.2.4. **(PACAF)** Time of flight over water.

7.3.5.2.5. **(PACAF)** Distance from land.

7.3.5.2.6. **(PACAF)** Mission altitude.

7.3.5.2.7. **(PACAF)** Risk based on type of sortie.

7.3.5.2.8. **(PACAF)** Degree of surveillance over the mission area.

7.3.5.2.9. **(PACAF)** Location, availability and capability of Search and Rescue (SAR) forces.

7.3.5.2.10. **(PACAF)** Winds, wave height, and their impact on SAR operations.

7.3.5.3. **(PACAF)** Commanders will ensure their aviators are fitted with a personnel anti-exposure suit IAW Technical Data prior to their first flight requiring an anti-exposure suit. Aviators will not fly missions requiring anti-exposure suits unless they have a suit fit to them IAW the technical data. Fitting will include neck seal, wrist seals, leg length, and socks. Units will provide divers gloves for use with constant wear anti-exposure suits. Gloves may be issued to the aircrew before flight or may be placed in the survival kit/vest.

7.3.6. **(PACAF) Helicopter Emergency Egress Device (HEED).** All rotary type aircraft aircrews will wear the HEED during overwater flights when they are outside the auto rotation distance from shore.

7.3.7. **(PACAF) Life Preserver Units (LPU).** LPU's will be worn on all overwater to include cross-country flights by aircrew members and passengers of ejection seat and single engine aircraft. Ejection seat unit's not flying over water may at the discretion of the unit commander remove the life preserver. Designated life preservers will be readily available during all overwater flights on multiplace aircraft.

7.3.7.1. **(PACAF)** The Adult/Child (A/C) (P/N A-A-50652) life preserver may be used on all passenger-carrying missions. Authorizations for A/C preservers are listed in AFI 11-301 V2 and will not be used to substitute other requirements. The LPU-6/P infant cot is required for infants 18 months of age and younger.

7.3.7.2. **(PACAF)** Life preservers packed in A-3 bags will have a seal on the bag and a completed DD Form 1574 attached.

7.3.7.3. **(PACAF)** Life preservers worn in conjunction with airborne operations will be readily available to jump personnel and will receive a visual pre-flight by the user and post flight inspection by AFE to ensure there is no damage to the container or the cell.

7.3.8. **(PACAF) Survival Kit/Vest Components.** Only those authorized and approved components will be used and all will be used and inspected IAW appropriate T.O.s, MAJCOM directives, to include manufacturer's instructions.

7.3.8.1. **(PACAF)** Survival kits and vest will be inspected IAW technical orders. See **Attachment 5, 6, 7 & 8 (Added)** for list of required components. Units are not required to duplicate items from the survival vest and survival kit.

7.3.8.2. **(PACAF)** For all ESA and HH-60 aircrew, wear of survival vest during local sorties will be at the discretion of the responsible operations group commander based on ORM and procedures published in AFI 11-2MDS-Specific, Volume 3, Chapter 8 (Local Procedures). Commanders will incorporate guidance regarding survival vest wear and survival equipment placement (i.e. PRC-90, PRC-112 and CSEL radios) into local Aircrew Flight Equipment (AFE) supplements. Survival vests will be worn for all cross country missions, contingencies and combat exercises.”

7.3.8.3. **(PACAF)** C-130 and UH-1 aircrews will wear survival vests on all combat missions and during operational inspections. See AFI 11-302V1 for listing of mandatory components.

7.3.8.4. **(PACAF)** The location of pockets on survival vests will be standardized to the maximum extent possible. However, the configuration must be compatible with all AFE available for wear by and comfort of the aircrew member. Units must pay special attention to the location of survival vest pockets to ensure AERP equipment does not interfere with aircraft controls, as applicable.

7.3.8.4.1. **(PACAF)** Survival vests in storage for deployment commitments will be configured to the maximum extent possible.

7.3.9. **(PACAF) Escape & Evasion Kits.** PACAF guidance for E & E Kits is as follows:

7.3.9.1. **(PACAF)** The survival module is designed to be placed in the survival vest or survival kit for access by aircrew in the event of an evasion situation. Units may determine the best location for the survival module (vest or kit).

7.3.9.1.1. **(PACAF)** To make room for the survival module in the survival vests units may remove all similar optional items (i.e. sun block, insect repellent, matches, whistle, glow tape, first aid kit, tourniquet, IR light stick, flashlights).

7.3.9.2. **(PACAF)** The medical module is a direct replacement for the legacy/tropical medical kits on an attrition basis.

7.3.9.3. **(PACAF)** The CAT tourniquet is a proven/enhanced capability for aircrews and will replace the Vietnam era tourniquet. Installation procedures for this tourniquet are the same as the current tourniquet.

7.3.9.4. **(PACAF)** Refer to T.O. 00-35A-39 for use, inspection and care of the E & E kits.

7.3.10. **(PACAF) Self Deployed Infrared Streamer (SDIRS).** SDIRS is a day/night signaling device that activates automatically upon immersion in water. SDIRS may be used in ACES-II Survival kits.

7.3.10.1. **(PACAF)** ACES-II dropline will be modified for SDIRS attachment IAW T.O. 14S1-11-3.

7.3.10.2. **(PACAF)** SDIRS will be inspected IAW Rescue Technology Corporation’s Inspection manual, which may be found on the PACAF AFE CoP. Along with this

manual the following documents may also be found on the PACAF AFE CoP: SDIRS Performance Specifications, SDIRS Folding procedures, SDIRS STF Letter, and the SDIRS lesson plan.

7.3.11. (PACAF) Gunner's Belts/Restraint Harnesses. Gunner's Belts/Restraint Harnesses will be inspected IAW T.O. 13A1-1-1, *Repair, Cleaning, Inspection, and Testing of Aircraft Safety Belts, Shoulder Harness, and Miscellaneous Personnel Restraint Equipment*. The MB-21, Part Number MS16070-21 is the restraint device authorized for helicopters. The PCU-17/P and HBU-6/P are the only devices authorized for use in fixed wing aircraft (i.e., C-17, C-130, RC-135, etc.). Alternate loading methods are listed in each MDS series publication. All PCU-17/P restraint harnesses will be equipped with an oxygen connector mounting plate (NSN: 1660-00-656-2522).

7.3.12. (PACAF) Oxygen Masks and Connectors. Oxygen masks, connectors, and emergency quick disconnects will be inspected, tested, and maintained by qualified AFE personnel as authorized by applicable T.O.s.

7.3.12.1. **(PACAF)** AFE will inspect and repair quick-start masks as required.

7.3.12.2. **(PACAF)** E-3 and E-4B aircraft crew oxygen masks will be inspected and maintained IAW applicable T.O.s by appropriate personnel. E-4B flight crew quick-don masks on the flight deck area will be inspected IAW McDonnell-Douglas or Boeing aircraft maintenance contract.

7.3.13. (PACAF) Parachutes/Torso Harnesses. Parachutes/torso harnesses will be inspected and maintained IAW appropriate 14D series technical orders and MAJCOM directives. Preflight inspection of personnel parachute or torso harness is the responsibility of the user.

7.3.13.1. **(PACAF)** MXU-22/P Inflatable Lumbar Support Pad. This USAF-approved item may be installed on parachutes and torso harnesses as authorized in writing by the local aerospace medicine office. Unit flight surgeons will be consulted for optimal use and placement of the lumbar support pad. When installed it will be inspected IAW appropriate T.O. and concurrent with item on which installed.

7.3.13.2. **(PACAF)** Units are authorized, IAW T.O. 00-20-1, to defer personnel parachute inspections on alert aircraft or aircraft away from home station, until the aircraft are removed from alert status or return to home station. NOTE: This provision is not to be used as a deliberate planning factor to defer inspections in support of deployment operations. Inspections will be accomplished prior to deployments.

7.3.13.3. **(PACAF)** Equip all parachutes with emergency locator beacons, automatic releases, and hook-blade knives. The MS-2000 or SDU-5/E strobe light with flashguard and infrared filter installed, AFP 64-15 and the SRU-16/P Minimum Survival Kit will be installed on back style parachutes and torso harnesses. These items may be installed in the survival vest at the option of the unit. Duplication of items is not required between the survival kit, torso harness, or survival vest.

7.3.14. (PACAF) Personnel Lowering Device (PLD). Group/deployment commanders have the authority to determine the day-to-day use of the PLD. During the PLD usage decision making process, commanders should consider the following: over flown terrain (i.e.,

mountainous, rough terrain, heavily wooded areas, etc.), flying time over such terrain, and the various uses of the PLD not related to lowering oneself from a tree. If PLDs are not worn on a daily basis, sufficient quantities will be stored properly in the unit's mobility package in serviceable condition.

7.3.15. **(PACAF) Contact Lenses.** The use of contact lenses by aircrew is prohibited while wearing their aircrew chemical defense equipment (i.e., AERP/ACDE) IAW AFJI 44-117.

7.3.16. **(PACAF) Commercial Off-The-Shelf (COTS) Batteries.** Use the same criteria contained in T.O.14S10-2-2, Pg 5-1, Para 5.1.1c for replacement of COTS batteries.

7.4. (PACAF) Care, Use, and Storage of AFE Equipment. The following specific instructions apply to the unique use, care and storage of AFE.

7.4.1. **(PACAF)** All flight clothing will be sanitized prior to deployment to combat areas or first employment mission. Sanitize all AFE and inspection forms prior to deployment. Use local control numbers on equipment and clothing items to identify and maintain accountability.

7.4.2. **(PACAF)** Only authorized knee-boards and clipboards will be used. The use of all-metal checklist rings presents both safety and FOD hazards and will not be used in ejection seat equipped aircraft. Units are authorized to use the nylon or plastic covered flex-lock type ring for checklist use. Aircrew members flying non-ejection seat aircraft may use clipboards authorized for use in AS 016.

7.4.3. **(PACAF)** The Chief of Supply may courtesy store ACDE/AERP equipment not required for immediate use or aircrew training IAW AFMAN 23-110, Vol 2, Part 2, Chapter 26, Section F, *Individual Mobility Baggage Kits*.

7.4.4. **(PACAF)** Vacuum-Packing AFE is authorized under the following conditions:

7.4.4.1. **(PACAF)** Clothing type items may be vacuum packed indefinitely, unless signs of discoloration, deterioration or broken seals are evident. All vacuum-packed items, other than clothing, will be opened and inspected every 24 months.

7.4.4.2. **(PACAF)** Vacuum packaging is not authorized for components that would inhibit compliance inspection criteria, aircrew safety, and accessibility for emergency use. Some examples of what not to vacuum pack include signaling and communication devices. ANG AFE units are permitted to vacuum seal signaling equipment for PARA rescue personnel.

7.4.4.2.1. **(PACAF)** The following ACDE items will not be vacuum packed. Butyl gloves, over capes, over boots, or HGU-41/P hoods.

7.4.4.3. **(PACAF)** All vacuum packaged items will be installed in a see through container and clearly labeled with the package contents. Seal items in such a way that the package can be opened with a single gloved hand. Mark the package "OPEN HERE" with an arrow pointing to the notched or tear strip (or equivalent). Label all packages using a 1 inch by 3 inch label, placed on the inside of the package, with the date of installation, any applicable manufacturing data and the initials of individual who packaged the item.

7.4.4.3.1. **(PACAF)** Vacuum packaging equipment may be requisitioned IAW AS 006 and AS 258.

7.4.5. **(PACAF)** Return all individually issued AFE equipment to a designated area for postflight inspection and storage. AFE personnel will maintain a postflight equipment log and document all inspections. Repairs that require replacement of parts will be documented on appropriate forms.

7.4.6. **(PACAF)** Ensure AFE technicians are available to aid aircrew members in fitting and preflighting AFE equipment. ANG AFE technicians will aid in fitting and preflighting during scheduled duty hours.

7.4.7. **(PACAF)** AFE is not responsible for storage, handling, servicing, or accountability of items such as thermos jugs, fire extinguishers, aircraft installed first aid kits, aircraft portable oxygen cylinders, pre-breather oxygen assemblies, halo kits, headsets, Kevlar helmets, ground crew chemical defense equipment, pyrotechnic flare pistols, E-and-E (SERE Kit) kits, NVG light kits, flak vests, passenger service equipment, aircraft escape slides, dosimeters, or items not related to the 412A system. AFE will not store, issue, or maintain weapons other than those intended for aircrew member issue/use.

7.5. (PACAF) Re-Use of AFE Equipment Involved In a Class A Aircraft Mishap. AFE equipment is not designed or intended for reuse after undergoing the effects of aircraft mishaps and will not be placed back into operational service. Use is limited to training purposes only and must not be subjected to training scenarios where system failure could cause injury to personnel.

Chapter 8 (Added-PACAF)

DEPLOYMENT AND CONTINGENCY OPERATIONS

8.1. (PACAF) Purpose. This chapter establishes broad policies governing responsibility and preparation for the deployment of AFE. It also establishes requirements for deployment and distribution of ACDE for all aircrew members.

8.1.1. **(PACAF)** This chapter establishes guidelines for AFE personnel and equipment required to support contingency operations.

8.2. (PACAF) Responsibilities.

8.2.1. **(PACAF)** Group and Squadron Commanders.

8.2.1.1. **(PACAF)** Ensure compliance with this chapter and keep AFE personnel informed of the group's existing and forthcoming contingencies/commitments.

8.2.1.2. **(PACAF)** Ensure unit's annual financial plan includes a budget for maintaining AFE to meet all probable peacetime and wartime missions.

8.2.2. **(PACAF)** FEO/AFES.

8.2.2.1. **(PACAF)** Ensure standardized unit deployment/mobility local directives are developed to recall, deploy, employ, and redeploy AFE personnel, equipment, and supplies. These directives will include all necessary information required to setup, employ, resupply, and staff the ACCA used by each unit.

8.2.2.2. **(PACAF)** Identify equipment shortages resulting in mission impairment as required by the Status of Resources and Training System (SORTS) reporting process IAW AFI 10-201, *Status of Resources and Training System*.

8.2.2.3. **(PACAF)** Ensure copies of MSDSs are available for each type of hazardous material being shipped to deployed locations.

8.2.2.4. **(PACAF)** Ensure items listed in LOGDET and Contingency Operations/Mobility Planning and Execution System (COMPES) listings are on hand and serviceable. Units must also review and comply with theater specific reporting instructions for specialized AFE requirements. Section NCOICs, through the FEO, OSS commander, and operations group commander will notify their MAJCOM of shortfalls in their mobility packages as directed by the MAJCOM.

8.2.2.5. **(PACAF)** Ensure unit staffing, training, and equipment are maintained and capable of supporting tasked UTCs IAW AFMAN 10-401. Develop and ensure theater specific AFE training is conducted prior to and during deployments, as required. Responsibilities include but are not limited to the following functions:

8.2.2.5.1. **(PACAF)** Develop and provide standardized deployment and ACDE/AERP equipment packages for unit commitments, to include bare-base and self-sustaining operations, as described in the unit DOC statements.

8.2.2.5.2. **(PACAF)** Establish and implement AFE programs based on DOC statements, OPLANs, tasked UTCs, and mission changes.

8.2.2.5.3. **(PACAF)** Ensure manpower type (MNT) codes (first two positions) are properly coded on unit manpower document (UMD) (i.e., XD, funded deployable; XI, funded in-garrison support force; XN, funded non-deployable operational force; or XX, funded institutional Force). For required only (unfunded) offset positions use RD, unfunded deployable; RI, unfunded in-garrison support force; RN, unfunded non-deployable operational force; or RX, unfunded institutional force.

8.2.2.5.4. **(PACAF)** Ensure an adequate amount of AFE technicians are initially qualified to process hazardous cargo and subsequent refresher training is accomplished as required.

8.2.2.5.4.1. **(PACAF)** Ensure an adequate amount of AFE technicians are trained to prepare cargo and build pallets for deployment and redeployment operations and are fork lift qualified to expedite movement of mobility gear during contingencies IAW AFI 10-403, *Deployment Planning and Execution*.

8.2.2.6. **(PACAF)** Coordinate with appropriate wing agencies to ensure AFE requirements are sustained during deployment or contingency operations (i.e., base supply, hospital, medical supply, MASO, disaster preparedness, etc.).

8.2.2.7. **(PACAF)** Identify items for bare-base operations and maintenance to include: ACCA shelter operations, tents, portable equipment racks, shuffle boxes, laptop computers, portable radios, etc. Laptop computers are required to load combat survivor evader locators (CSEL), and ALERTS. Portable radios are required for communication between AFE and Emergency Operations Center (EOC).

8.2.2.8. **(PACAF)** Ensure items listed in LOGDET and packing list are on-hand and inspected.

8.2.3. **(PACAF) Pilot and Non-pilot Units.**

8.2.3.1. **(PACAF)** Pilot Units, with assistance from non-pilot units, are responsible for developing and maintaining the standard LOGDET for each UTC assigned to it. The unit must comply with responsibilities IAW AFMAN 10-401, Volume 1, Operation Plan and Concept Plan Development and Implementation. The goal is a uniform package for all units using the UTC. Coordinate change requests through respective MAJCOM AFE manager.

8.2.3.2. **(PACAF)** Non-pilot units will review assigned UTC equipment listings on a biennial basis. Provide the pilot unit with suggested changes.

8.3. **(PACAF) Mobility Preparation.**

8.3.1. **(PACAF)** Ensure AFE personnel are trained to process and handle hazardous cargo IAW AFMAN 24-204(I), Preparing Hazardous Materials for Military Air Shipments. At least two AFRC personnel (per unit) will be trained and qualified to prepare hazardous materials for shipping.

8.3.2. **(PACAF)** If applicable, ensure personnel are qualified in unit assigned aircrew weapons to include issue, operations, cleaning, and security requirements.

8.3.3. **(PACAF)** All personnel will be current in essential ancillary training and wartime skills identified in CFETP 1POX1 prior to deployment.

8.3.4. **(PACAF)** Air Expeditionary Wings (AEW) and AEF units must coordinate with each other, as well as the MAJCOM to ensure appropriate and adequate equipment and supplies are deployed.

8.3.5. **(PACAF)** Units experiencing a shortage of AFE may work with units with similar MDS aircraft to satisfy requirements. Coordinate all equipment requirements through the MAJCOM to ensure other units' deployment capabilities are not hampered.

8.3.6. **(PACAF)** Ensure mobility bins or boxes are available for transportation and storage of AFE and supplies. Bins will be pre-packed to the maximum extent possible at all times.

8.3.7. **(PACAF)** Ensure sufficient quantities of equipment, parts, supplies, forms, inspection records, TOs and computers are packed to support UTC LOGDET requirements and extended combat operations.

8.3.8. **(PACAF)** In addition to all maintenance equipment and supplies, portable or deployable equipment racks, workbenches, and storage bins will be included in the mobility package.

8.3.9. **(PACAF)** Ensure equipment stored in the mobility bins or boxes is inventoried and inspected for serviceability at least annually, if stored in a climate controlled facility, and once every 180 days when stored in other conditions. A locally developed form will be used on each bin or box to document this inspection. Constant maintenance of mobility stock levels must be accomplished to support ongoing operations. Additional consideration should be given to the potential for follow-on tasking from a deployed location.

8.3.10. **(PACAF)** Ensure Test Measurement and Diagnostic Equipment (TMDE) are calibrated to the maximum extent possible prior to deployments. Inspection should be staggered to prevent all TMDE coming due at same time and all TMDE should be carefully packaged to prevent damage.

8.3.11. **(PACAF)** Ensure all accountable, deployable AFE equipment items are assigned use code "A" for mobility on the custodian authorization/custody receipt listing (CA/CRL).

8.4. (PACAF) Deployment.

8.4.1. **(PACAF)** Ensure deploying AFE and accompanying inspection forms are sanitized of data pertaining to unit of assignment or activity.

8.4.2. **(PACAF)** All deploying aircrews will have individual AFE combat configured prior to the first employment mission. The following actions are required:

8.4.2.1. **(PACAF)** Issue weapons IAW applicable Air Force instructions. Not applicable to GA AFE sections.

8.4.2.2. **(PACAF)** Ensure aircrew sanitize their flight equipment.

8.4.2.3. **(PACAF)** Personnel locator beacons and survival radios will be configured based on established theater requirements or as directed by the Emergency Operations Center (EOC).

8.4.2.4. **(PACAF)** Configure aircraft AFE for appropriate contingency operations.

8.5. (PACAF) Employment.

8.5.1. **(PACAF)** As applicable, upon arrival at deployed location, AFE supervision will establish contact with the EOC Emergency Support Function (ESF) -5 CBRN Cell to coordinate plans for aircrew contamination control area (ACCA) construction and operation during stages of alerts. ACCA operations should be collocated with groundcrew contamination control area (CCA) operations to the maximum extent possible. However, separate the aircrew and groundcrew CCA functions by a minimum distance of 50 feet.

8.5.2. **(PACAF)** Each AFE section should establish an organizational Non-classified Internet Protocol Router Network (NIPRNET) and Secret Internet Protocol Router Network (SIPRNET) account to ensure effective communications. If an organizational SIPRNET account is not available, efforts should be taken to gain access to the SIPRNET for conduct of deployed operations.

8.5.3. **(PACAF)** Follow theater, MAJCOM, and unit specific guidance for employed area operations and redeployment.

8.5.4. **(PACAF)** Units should report all shortfalls through deployed leadership to minimize impact on theater capability.

8.6. (PACAF) Counter - Chemical, Biological, Radiological Nuclear (C-CBRN).

8.6.1. **(PACAF)** Ensure the full basis of issue (BOI) for aircrew C-CBRN operations (refer to Table 8.1. of this instruction) is available to each aircrew member deployable to a chemical or biological threat area. Aircrews will be sized, fitted and issued a D-1 mini bag; remaining assets may be maintained as ready to issue bulk storage. Aircrew deploying into chemical or biological threat areas will hand carry one complete ACDE/AERP (D-1 "mini" bag). Units must also comply with theater specific reporting instructions for C-NBC requirements when the D-1 mini bag is insufficient to meet their requirements.

8.6.2. **(PACAF)** Unit AFE personnel will maintain individual aircrew sizing information in ALSMS/FERMS or equivalent, be responsible for requisitioning, fitting, and maintaining ACDE/AERP equipment, and be readily available for donning and doffing operations.

8.6.3. **(PACAF)** AFE personnel will be trained in ACCA operations management, and aircrew processing procedures. Only qualified AFE personnel will fit, inspect, maintain, and decontaminate ACDE as required by appropriate TOs and this instruction.

Table 8.1. AIRCREW CHEMICAL DEFENSE EQUIPMENT BASIS-OF-ISSUE (BOI)

Nomenclature	D-Bag Quantities	D-1 Bag (Mini) Quantities	Total Quantities	Training Quantities
MBU-19/P, Mask/Filter Manifold	0	1	1	IAW AS 450
CQU-7/P, Blower and Hose Assembly	0	1	1	IAW AS 450
Pigtail Adapter	0	1	1	IAW AS 450
Inline Filter Assembly	1	1	2	N/A
Filter, Oxygen Emergency Assembly	1	1	2	N/A
Blower Batteries, Lithium (Note 5)	2	2	4	As Required
Aircrew Coverall, CWU-66/P (Notes 1 and 4)	1	1	2	N/A
Strap Fastener, Blower Battery Cover	2	2	4	As Required
Filter Canister, C2A1 (Note 8)	2	2	4	As Required
Protective Gloves 7 Mil Butyl	2 pr	2 pr	4pr	As Required
Glove Inserts	2 pr	2 pr	4 pr	As Required
Cotton Undergarments (optional)	1	1	2	As Required
Disposable Footwear Cover, Overboot	2 pr	2 pr	4 pr	As Required
Suspension Straps	0	3	3	As Required
Aircrew Cape, Disposable	2	2	4	As Required
MXU-835/P, Intercom Unit	0	1	1	IAW AS 450
Battery, 9-volt	1	1	2	As Required
DECON KIT, M295 (Notes 3,	0	1	1	As Required

6,7)				
MBU-13/P, CBO Mask (Note 2)	0	1	1	IAW AS 450
HGU-41/P, Protective Hood (Note 2)	1	1	2	IAW AS 450

NOTES:

1. Cotton undergarments are optional with the CWU-66/P.
2. These items are authorized when the AERP system (mask and blower) is not available or assigned aircraft are not modified.
3. Use of flight suit is suitable for training purposes.
4. Use of simulated M295 is required for training purposes.
5. Batteries can be removed from the D and D-1 bag for those units that support continuous deployment cycle and can be stored within the shop as long as the batteries on-hand meet the BOI requirement for the bags maintained.
6. One M295 Kit consist of 4 each M295 Mitts.
7. Bulk Store M295 Decon Kits in their original unopened containers. Packages will only be opened and distributed when directed to do so by command authority (i.e. installation commander, MAJCOM directives, SPINS, etc.).
8. Only 1 filter is required per bag when used with the MBU-13/P mask.

8.7. (PACAF) Deployment Operations/Mobility Preparation.

8.7.1. **(PACAF)** Configure aircraft-installed and aircrew-issued AFE, survival vests, and parachutes for contingency operations. All aircrew will have their individual AFE combat configured, prior to the first employment mission.

8.7.2. **(PACAF)** Mobility bins and boxes will be available for storage and deployment of AFE.

8.7.3. **(PACAF)** Units will maintain sufficient quantities of technical data, tools, equipment repair parts, and supplies to support surge-type operations under bare-base conditions for a minimum of 90 days without resupply. Sufficient test equipment must be available to meet deployment commitments and have current calibrations documented. In addition, units may establish War Reserve Material (WRM) for swing stock IAW AFI 25-101, *War Reserve Materiel (WRM) Program Guidance and Procedures*.

8.7.4. **(PACAF)** Include portable or deployable equipment racks, work benches, storage bins, computers, etc., in the contingency package (LOGDET). Facility considerations (stand-up shop) will include all AFE storage and maintenance requirements.

8.7.5. **(PACAF)** Complete a detailed packing list and diagram for each mobility bin or box. Ensure packing list is “user” friendly so all AFE personnel may find equipment and supplies stored in bin or box.

8.7.6. **(PACAF)** Prepackage equipment and supplies designated for contingency commitments to the maximum extent at all times. Secure and store assets and tone-down equipment IAW AFI 25-101. Do not use these assets as a source of supply for daily peacetime operations at home-station.

8.7.7. **(PACAF)** Establish weapons and ammunition issue, receipt, accountability, and control procedures IAW AFI 31-207, *Arming and Use of Force by Air Force Personnel*, and AFMAN 31-229, *USAF Weapons Handling Manual*, as appropriate. Record information on AF Form 629, *Small Arms Hand Receipt*, AF Form 1297, or a master control roster. Any deviations to weapons issue procedures must be approved IAW AFI 31-207, *Arming and Use of Force by Air Force Personnel* Protect weapons under field conditions IAW AFH 31-223.

8.8. (PACAF) Deployment of Inspection Records.

8.8.1. **(PACAF)** Establish procedures to ensure AFE records accompany the deployed AFE personnel.

8.9. (PACAF) Aircrew Chemical Defense.

8.9.1. **(PACAF)** Establish procedures to ensure deploying aircrew hand-carry at least one complete ACDE/AERP ensemble (D-1 mini bag).

8.9.1.1. **(PACAF)** Carefully package ACDE/AERP equipment components to prevent damage.

8.9.2. **(PACAF)** Should staffing requirements and mission needs dictate, deployable augmentee resources may be trained in shelter operations and ACCA processing; however, they will not be trained or assigned in a capacity requiring AFE technical expertise (AFSC 1P0X1).

8.9.3. **(PACAF)** Aircrew ACDE/AERP ensemble sizes. AFE units must deploy with crew members’ individual ACDE/AERP ensemble size information to give AFE personnel the capability to requisition sized items as necessary for deployed aircrew. Units may develop local procedures to provide crew members their individual size information to have on their person while deployed.

DANIEL J. DARNELL, Lt Gen, USAF
DCS, Operations, Plans and Requirements

(PACAF)

GARY L. NORTH, General,
Commander, PACAF

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

The following is a list of publications that are required to effectively manage an AFE Program. FEOs, AFE superintendents, supervisors, and technicians should possess a working knowledge of these documents. This list is not all-inclusive. This list also includes general information TOs pertaining to inspection, maintenance, storage, and use of personal flying and survival equipment. Specific TOs for items authorized within the unit are required to maintain AFE.

AIR FORCE PUBLICATIONS

AFMAN 10-100, *Airman's Manual*, 01 Jun 2004

AFI 10-201, *Status of Resources and Training System*, 13 Apr 2006

AFPAM 10-219, Volume 6, *Planning and Design of Expeditionary Airbases*, 01 Feb 2006

AFI 10-401, *Air Force Operations Planning and Execution*, 07 Dec 2006

AFI 10-402, Volume 1, *Mobilization Planning and Personnel Readiness*, 09 Aug 2007

AFI 10-403, *Deployment Planning and Execution*, 13 Jan 2008

AFI 10-601, *Capabilities-Based Requirements Development*, 31 Jul 2006

AFI 10-701, *Operations Security (OPSEC)*, 18 Oct 2007

AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*, 24 Jan 2007

AFI 10-2601, *Counter-Chemical, Biological, Radiological and Nuclear Operations* (forthcoming)

AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards*, 29 May 2003

AFMAN 10-2605, *Education, Training and Exercise Competencies for Counter-Chemical, Biological, Radiological and Nuclear Operations*, 30 Jun 2008

AFI 11-2AE, Volume 3, *Aeromedical Evacuation (AE) Operations Procedures*, 18 May 2005

AFI 11-2MDS-Series, Volume 1, *Aircrew Training*, (see applicable MDS volume 1)

AFI 11-202, Volume 1, *Aircrew Training*, 17 May 2007

AFI 11-202, Volume 3, *General Flight Rules*, 05 Apr 2006

AFI 11-215, *USAF Flight Manuals Program (FMP)*, 06 Apr 2005

AFPD 11-3, *Life Support*, 09 Apr 1993

AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*, (2009 revision)

AFI 11-301, Volume 2, *Maintenance and Configuration Requirements for Mobility Air Forces (MAF) Aircrew and Aircraft-Installed Aircrew Life Support Equipment (ALSE)*, 01 May 2006

AFI 11-301, Volume 3, *Aircrew Flight Equipment (AFE) Combat Operations* (forthcoming)

AFI 11-301, Volume 4, *Aircrew Laser Eye Protection (ALEP)*, 21 Feb 2008

AFI 11-401, *Aviation Management*, 07 Mar 2007

AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*, 25 Sep 2007

AFI 11-403, *Aerospace Physiological Training Program*, 20 Feb 2001

AFI 11-410, *Personnel Parachute Operations*, 04 Aug 2008

AFI 13-208, *Personnel Recovery Coordination Cell Operating Procedures*, 10 Mar 2007

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Abbreviations and Acronyms

AC—Aircraft Commander

ACC—Air Combat Command

ACCA—Aircrew Contamination Control Area

ACDE—Aircrew Chemical Defense Ensemble

ACDT—Aircrew Chemical Defense Training

AEF—Air and Space Expeditionary Forces

AERP—Aircrew Eye/Respiratory Protection

AETC—Air Education and Training Command

AEW—Air Expeditionary Wing

AFCAIG/CPFH—Air Force Cost Analysis Improvement Group/Cost Per Flying Hour

AFCAT—Air Force Catalog

AFCFM—Air Force Career Field Manager

AFE—Aircrew Flight Equipment

AFECT—Aircrew Flight Equipment Continuation Training

AFH—Air Force Handbook

AFI—Air Force Instruction

AFIND—Air Force Index

AFJI—Air Force Joint Instruction

AFJMAN—Air Force Joint Manual

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFMS—Air Force Manpower Standard

AFOSH STD—Air Force Occupational, Safety, and Health Standard
AFPAM—Air Force Pamphlet
AFPD—Air Force Policy Directive
AFRC—Air Force Reserve Command
AFSC—Air Force Specialty Code
AIT—Automated Information Technology
ALERTS—Automated Life-sustaining Equipment & Record Tracking System
ALSMS—Automated Life Support Management System
AMC—Air Mobility Command
ANG—Air National Guard
ANGIND—Air National Guard Index
APEC—Aircrew Performance Executive Council
APWEB—Aircrew Protection Website
ARC—Air Reserve Component
ARMS—Aviation Resource Management System
AS—Allowance Standard
BFT—Basic Fighter Training
BOI—Basis Of Issue
C—Celsius
CFETP—Career Field Education and Training Plan
CTK—Composite Tool Kit
CMB—Contact Memory Button
CMS—Capabilities-based Manpower Standard
COTS—Commercial-Off-The-Shelf
COTS/NDI—Commercial-Off-The-Shelf/Non-Developmental Item
DCS—Deputy Chief of Staff
DRU—Direct Reporting Unit
DSN—Defense Switched Network
EEIC—Element of Expense/Investment Code
EPT—Egress Procedures Trainer
F—Fahrenheit
FAA—Federal Aviation Administration

FEO—Flight Equipment Officer (Rated)
FM—Functional Manager
FOA—Field Operating Agency
FOD—Foreign Object Damage
FTU—Formal Training Unit (Flying)
HABD—Helicopter Aircrew Breathing Device
HEED—Helicopter Emergency Egress Device
HHQ—Higher Headquarters
IAW—In Accordance With
ID—Identification
IPB—Illustrated Parts Breakdown
JACKS—Joint Acquisition Chemical Biological Radiological Nuclear Knowledge System
JCIDS— Joint Capabilities Integration Development System
LOGDET—Logistics Detail
MAJCOM—Major Command
MDS—Mission Design Series
MFM—MAJCOM Functional Manager
N/A—Not Applicable
NAF—Numbered Air Force
NCO—Noncommissioned Officer
NCOIC—Noncommissioned Officer In Charge
NSN—National Stock Number
NVD—Night Vision Devices
NVG—Night Vision Goggles
OI—Operating Instruction
OJT—On-The-Job Training
OPLAN—Operations Plan
OPR—Office of Primary Responsibility
OSS—Operations Support Squadron
OSS&E—Operational Safety, Suitability, & Effectiveness
OT&E—Operational Test and Evaluation
PAI—Primary Aircraft Inventory

PCS—Permanent Change of Station
POC—Point of Contact
PQDR—Product Quality Deficiency Report
QA—Quality Assurance
QI—Quality Inspector
SOW—Statement Of Work
TBA—Training Business Area
TCTO—Time Compliance Technical Order
TDY—Temporary Duty
TMDE—Test, Measurement, and Diagnostic Equipment
TO—Technical Order
TPFDD—Time-Phased Force Deployment Data
UMD—Unit Manpower Document
UMPR—Unit Manning Personnel Roster
UTC—Unit Type Code
WST—Water Survival Training
WUC—Work Unit Code

TERMS

Aircrew Contamination Control Area (ACCA)—A self-sustaining aircrew only decontamination control area that minimizes cross contamination to aircrew and is staffed by certified AFE personnel.

Aircrew Chemical Defense Ensemble (ACDE) Equipment—Individually fitted aircrew unique chemical protective equipment for the sole purpose of protecting operators from chemical/biological warfare agents who fly into and out of a chemically contaminated environment.

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), aeromedical evacuation technicians (AET), and unqualified student trainees under the direct supervision of a qualified instructor or FN, performing AE duties.

Aircrew Flight Equipment (AFE)—AFE encompasses all equipment that was formerly known as aircrew life support equipment, is part of the 412A life support system, or as designated by NGB/A3OS.

Aircrew Eye/Respiratory Protection (AERP) Equipment—AERP equipment is designed to protect the crewmember from toxic chemical exposure to the head, neck, face, eyes, and

respiratory tract. This equipment is designed to provide protection without imposing operational or physiological burdens, degrading mission capability, or combat effectiveness.

Area of Operations (AO) (DoD)—An operational area defined by the joint force commander for land and maritime forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. Also called AO. See also area of responsibility; joint operations area; joint special operations area.

Arctic Flight—Any flight conducted above the 50th parallel of north latitude.

Antarctic Flight—Any flight conducted below the 56th parallel of south latitude.

Bare Base—A base having minimum essential facilities to house, sustain, and support operations to include, if required, a stabilized runway, taxiways, and aircraft parking areas. A bare base must have a source of water that can be made potable. Other requirements to operate under bare base conditions form a necessary part of the force package deployed to the bare base.

Chemical Threat Area (CTA)—An area that may be subject to attack with chemical warfare agents from a number of sources.

D—1 Bag—One complete Aircrew Chemical Defense Ensemble carried by aircrews when deploying to chemical threat environment.

D—Bags—Full compliment of ACDE equipment. May or may not include the D-1 bag during deployment.

Desolate Terrain Flight—Any flight conducted over uninhabited areas (excluding the Continental United States [CONUS]) exceeding one hour flight time.

Ground Crew Contamination Control Area (CCA)—Area managed by civil engineering readiness flight to safely process ground crew personnel

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 either TO, MAJCOM, or locally directed and are accomplished by qualified personnel as identified on the Special Certification Roster.

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.

Nomex®—Nomex® fabric is a high-temperature resistant and inherently flame retardant synthetic fabric with no-hot-melt 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 also nonabsorbent like nylon and other synthetic fabrics.

Operational Support Crewmember—Personnel on flying status but not occupying a UMD “A” prefix position.

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 commanders in response to requirements established by the Chairman of the Joint Chiefs of Staff and by

commanders of subordinate commands in response to requirements tasked by the establishing unified commander. 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 (TPFDD) files. OPLANs will include all phases of the tasked operation. The plan is prepared with the appropriate annexes, appendixes, and TPFDD files as described in the Joint Operation Planning and Execution System manuals containing planning policies, procedures, and formats. OPLANs are prepared in either a complete format (OPLAN) or as a Concept Plan (CONPLAN). The CONPLAN can be published with or without a TPFDD file. An OPLAN for the conduct of joint operations that can be used as a basis for development of an Operation Order (OPORD).

Overwater Flight—Any flight taking off or landing over water, exceeding power-off glide or auto-rotational distance from land.

Passenger (PAX)—Individual aboard aircraft for the purpose of transportation.

Pilot Unit—Unit designated by the MAJCOM FM to handle LOGDET management responsibilities for an UTC. Pilot units are listed in the header record of each UTC and LOGDET.

Primary Aircraft Inventory (DoD)—The aircraft assigned to meet the primary aircraft authorization. Also called PAI.

Primary Crewmember—Any person, rated or nonrated, and required on aircraft to accomplish flying mission.

Theater (DoD)—The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility.

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.

Attachment 2

AIR FORCE STANDARD AFE AUTOMATED INFORMATION TECHNOLOGY (AIT) BARCODE MARKING

Contractors and suppliers for all AFE systems to include subcomponents shall use bar code nameplates, labels, or direct part markings IAW DoD MIL-STD-130 Change 1, DoD UID Guide, and this document. Use of an advanced part marking technology like bar codes and 2D symbols is essential to the AFE community being able to facilitate automated “removal and replace” features of automated programming and product support/maintenance. Exceptions to use of machine-readable nameplates will be considered, on a case-by-case basis, in accordance with practical or good business sense (e.g., part too small for nameplate, part immersed in fuel tank, etc.). AFE will consider other advanced part marking technology should they become commercially practicable, driven by DoD requirements, and or advantageous to the government in the future.

Marking Requirements.

Human Readable Information (HRI) and Machine Readable Information (MRI) are required for current AIT systems to provide the necessary advances in efficiency. Defense Federal Acquisition Regulation Supplement (DFARS) and the DoD has mandated the use of Data Matrix ECC 200 as the standard format for UID MRI markings. Overarching guidance for the construct and application of Data Matrix markings is contained in MIL-STD-130 and DoD UID Guide located at www.acq.osd.mil/dpap/UID. Specific examples are given here for manufactures and suppliers for implementation.

AFE has three different situations that require or can require different markings and they are:

- a. UID Serialized Lot Batch; Items controlled with serial numbers and lot numbers
- b. UID Serialized Data Stream; Items controlled with serial numbers only
- c. Non UID/Non Serialized Lot Batch; Items that do not meet the UID requirement and are not controlled with serial numbers.

See **figures 1 – 6** for specific examples of the labels and data streams.

HRI Marking Requirements. The following HRI data is required (as a minimum):

- Manufacturer’s Commercial and Government Entity (CAGE) code, 5 alpha/numeric characters
- Item Lot Number

NOTE: The Lot Number **MUST** be unique within the manufacturer’s CAGE (Lot Numbers cannot be repeated on other part numbers)

- Item Serial Number

NOTE: Air Force contracts typically require 5 digit serial numbers (minimum), sequentially assigned, not to be repeated until serial number 99,999 has been reached

- Item manufacturer's Part Number

NOTE: The weapon system Specification Number does not meet this requirement

- Contract Number (CNCT#), 13 alpha/numeric characters
- Date of Manufacture; Year and Day of manufacture in Julian Date format

NOTE: Markings and/or attachments shall make no reference to item installation requirements/procedures or shelf/service lives.

MRI Data Construct.

Data Matrix ECC200 markings shall be developed based on UID Data Construct #2 using Data Identifiers (DIs) in accordance with MIL-STD-130 and the DoD UID Guide (see **Figure 2**). To facilitate durability throughout the scanning life cycle, the largest symbol size, including quiet zone, shall be fitted within the available marking real estate. The symbol's internal module (cell) sizes shall be no smaller than 0.0075 inch (0.19 mm) and no larger than 0.025 inch (0.64 mm). Marks shall contain **only** the data elements identified below:

NOTE: The parentheses surrounding the Data Identifier are NOT encoded in the 2D symbol.

- (17V) Manufacturer's Commercial and Government Entity (CAGE) code, 5 alpha/numeric characters.
- (1T) Item production Lot Number, IAW HRI requirement, Maximum 20 alpha/numeric, including special characters (- or/).

NOTE: The lot number **MUST** be unique within the manufacturer's CAGE (Lot Numbers cannot be repeated on other part numbers)

- (S) Item Serial Number, IAW HRI requirement, Maximum 20 alpha/numeric including special characters (- or/).
- (1P) Manufacturer's Item Part Number, Maximum 20 alpha/numeric including special characters (- or/).

NOTE: The weapon system Specification Number does not meet this requirement.

- (8K) Contract Number (Cont No), Maximum 13 alpha/numeric characters.

NOTE: For this data element the dashes are not transmitted in the data stream.

- (4D) Date of Manufacture (DOM) in Julian Date format, five numeric characters:

EXAMPLE: 06151 = 31 May 2006

The first two positions are the last two digits of the year; the last three positions are the Julian Date (001 through 366)

Figure 1. Sample UID Serialized Lot Batch Data Plate/Label.



Figure 2. Sample UID SERIAZLIZED LOT BATCH Data Stream.

D>^R_S 06 ^G_S 17V 12345 ^G_S 1T ABC06D123-001 ^G_S S 12345678 ^G_S 1P 123456789-ABCDEFGH ^G_S 8K
FA8522-04-D-0015 ^G_S 4D 06130 ^R_S ^E_OT

Figure 3. Sample UID Serialized Data Plate/Label.

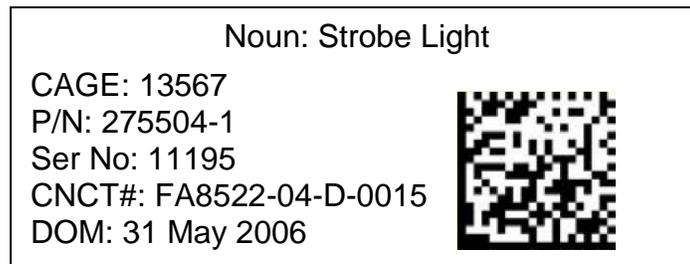


Figure 4. Sample UID Serialized Data Stream.

D>^R_S 06 ^G_S 17V 12345 ^G_S 1P 123456789-ABCDEFGH ^G_S S 12345678 ^G_S 8K FA8522-04- D-0015 ^G_S
4D 06130 ^R_S ^E_OT

Figure 5. Sample Non UID/Non Serialized Lot Batch Data Plate/Label.

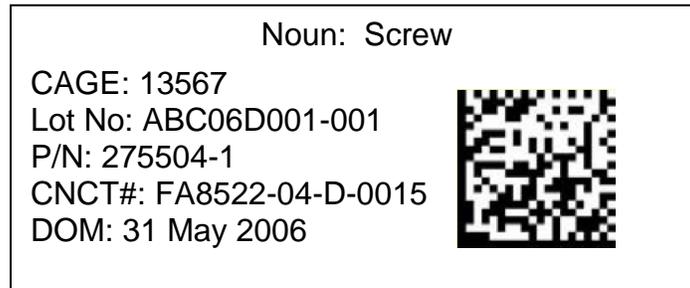


Figure 6. Sample Non UID/Non Serialized Lot Batch Data Stream.

[> ^R_S 06 ^G_S 17V 12345 ^G_S 1T ABC06D123-001 ^G_S 1P 123456789-ABCDEFGH ^G_S 8K FA8522-04-D-0015 ^G_S 4D 06130 ^R_S ^E_OT

Attachment 3 (Added-PACAF)**PACAF AFE QUALITY CONTROL (QC) PROGRAM**

Note: (Added) Not applicable to AFRC/ANG units. AFRC/ANG will provide separate guidance and/or an attachment to this AFI supplement with respective AFE QC program guidance/requirements.

A3.1. (Added-PACAF) General. The PACAF AFE QC program is a supplement to guidance previously provided in this AFI. It encompasses most QC activity for the AFE program and ensures all equipment and vital programs are adequately inspected. This ensures only the highest quality equipment is provided to each aircrew member. As required, each unit will supplement these guidelines to develop a viable quality control program that will assess, analyze, and identify problem areas that may exist. Utilize this program to measure technician competence, equipment serviceability, and overall program integrity.

A3.1.1. (Added-PACAF) Daily QCIs:

NOTE: All required QCIs should be accomplished prior to the next flight.

A3.1.1.1. (Added-PACAF) Daily QCIs will be performed on 100% of all personnel/recovery/drogue/cargo/drag deceleration devices, torso harnesses, survival kits/vests, night vision devices, Joint Helmet Mounted Cueing System (JHMCS), aircrew Eye Respiratory Protective (AERP) mask/blower/intercom, and life preservers/rafts. In addition, all helmets will receive a QCI after initial build-up only.

A3.1.1.1.1. (PACAF) At a minimum, the survival kit QCI will include the following: Component inspection, raft hook up and torque, and kit closure.

A3.1.1.2. (PACAF) AFE items not listed in para. A3.1.1.1. will receive a 25% daily QCI.

A3.1.1.3. (PACAF) All items received from outside support agencies will receive 100% QCI. These agencies include, but are not limited to: TMDE, medical supply, and munitions.

A3.1.1.4. (PACAF) QCIs will be performed on 100% of all 3-skill level work until the individual is task certified.

A3.1.2. (PACAF) The QCI process will also include other functions which require assessment on a routine basis. Section NCOICs or assistants will conduct and document checks on at least one of the major areas listed below on a weekly basis:

Explosive locker/munitions program

PMEL

CTKs

Administrative files to include technical orders, etc.

OJT program, to include task evaluations, etc.

Supply, to include control and accountability, documentation, supply product reviews, etc.

Inspection record files

Storage of equipment

Housekeeping

QA Program

AFE Aircrew Training and Equipment

Safety Program

A3.1.3. **(Added-PACAF)** Documentation of QCI. Upon completion of the inspection, the inspector will document QCIs and ensure all pertinent information is gathered. The form will include, as a minimum, the following information.

A3.1.3.1. **(Added-PACAF)** Item/equipment type, local control number, name of item inspector, date of QCI, discrepancy (if noted), name of QC inspector, and a suspense date for corrective action. Also, include areas for corrective action (EXAMPLE: page and paragraph from T.O.), date corrected, and initials of person correcting the discrepancy.

A3.1.4. **(Added-PACAF)** Section NCOICs or assistants will conduct monthly training sessions on negative trends identified from the QCI process. Trend analysis will be reported to AFES.

A3.1.5. **(Added-PACAF)** Classification/Definitions of Discrepancies.

A3.1.5.1. **(Added-PACAF)** A major finding is defined as a condition that would endanger personnel, jeopardize equipment or system reliability, and affect safety of flight or warrant discontinuing the process or equipment operation.

A3.1.5.2. **(Added-PACAF)** A minor finding is defined as an unsatisfactory condition that requires repair or correction, but does not endanger personnel, affect 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 causes the equipment from being 100% compliant with current directives.

A3.1.5.3. **(Added)** Units are authorized to track what is known as an administrative finding. An administrative finding is a documentation error that was overlooked that identifies critical information but has no effect on the operational process or use of the item.

Attachment 4 (Added-PACAF)

PACAF MULTI-PLACE AIRCRAFT CONFIGURATION

Table A4.1. PACAF Multi-Place Aircraft Configuration

Minimum Required Equipment	HH-60G	UH-1N	E-3
Mask, -358 Series			5
Fire Fighters Smoke Mask			6
Fire Fighters Smoke Mask, MBU-10/P			22
Passenger Oxygen Mask			25
EPOS			18
Restraint Harness, PCU-17/P			1
Life Raft, 7-Person, LRU-1/P or 9-Person; T-9	1	1	
Life Raft, 20-Person, F-2B			2
Life Preserver, LPU-2/P 10/P	2	12	40
Minimum Survival Kit		1	
Anti-Exposure Suit, CWU-16/P			40

NOTE: ANG HH-60's exempt from pre-positioning LPU-2/P on HH-60

Attachment 5 (Added-PACAF)

PJ LOAD BEARING EQUIPMENT (LBE) VEST (NYLON)/SARVIP

Figure A5.1. PJ Load Bearing Equipment (LBE) Vest (Nylon)/Sarvip

Pararescuemen (PJ), are authorized to wear SRU-21/P survival vest, PJ Load Bearing Equipment (LBE) or approved vest/LBE as approved by 311 HSW as required for mission execution. Pararescuemen regularly deploy from aircraft to perform their primary mission. During routine flights where PJ does not intend to deploy (i.e. non-alert with no Alternate Insertion/Extraction (AIE), etc.), PJ will retain the mandatory aircrew flight equipment (AFE) items. During alert, combat, or when required to deploy from aircraft (i.e. AIEs), PJ may modify AFE items to meet mission requirements.

NOTES:

Aircrew flight equipment organizations will maintain the following required complement of equipment based on number of PJs and the routine fly requirement. PJ LBE items don't require standardization for inspection. Components do not require securing. Pararescue personnel are not required to wear fire-retardant/anti-exposure clothing when special purpose clothing is considered more appropriate for mission completion.

Noun Quantity

Survival radio PRC and/or CSEL compatible series (w/spare battery)	1 each
Individual First Aid Kit (or equivalent)	1 each
Signal, Distress MK-13/MK-24 (or equivalent)	2 each
Mirror, Signal Type I or II (optional)	1 each
Signal, Kit, Personnel Distress, A/P25S-5A (or equivalent)	1 each
Strobe light, MS-2000 or SDU-5/E w/IR Filter and Flashguard (or equivalent)	1 each
Whistle Plastic (optional)	1 each
Compass, Lensatic or Silver Ranger (or equivalent)	1 each
Knife, Sheath General Purpose (or equivalent)	1 each
Knife, Pocket or Leatherman Tool (optional)	1 each
HEEDs (as required for mission)	1 each
Box, Matches, Waterproof w/matches (optional)	1 each
Packet, Sea Dye Marker (as required for mission) (optional)	1 each

Attachment 6 (Added-PACAF)**SURVIVAL VEST (EJECTION SEAT AIRCRAFT)****Figure A6.1. Survival Vest (Ejection Seat Aircraft)**

The following items are mandatory in the survival vest for ejection seat aircraft:

Noun Quantity

Survival radio, PRC and/or CSEL compatible series (with spare battery)	1 each
Mirror, signal (Non plastic)	1 each
Compass	1 each
Signal distress, MK-13 or 124	1 each
Holster (weapon as required) (Not required for Eielson AFB aggressor units)	1 each

NOTE:

If handheld GPS is available at the unit, it is a mandatory item in the vest. It will not be packed in the survival kit: GPS (Garmin series) 1 each

Attachment 7 (Added-PACAF)

ACES II SURVIVAL KIT

Figure A7.1. ACES II Survival Kit

The following items are mandatory in the ACES II survival kit:

Noun Quantity

Life Raft, One Man	1 Each
E & E Kit, Medical Module	1 Each
Knife – 5 inch	1 Each
Signal Distress, MK-13/124	1 Each
Flexi Pac Water	4 Each
Whistle	1 Each
Sea Dye Marker	1 Each
Raft Repair Plugs (no plyiers)	1 Each
Wool Hood	1 Each
Matches and Container	1 Each
Divers Gloves+	1 Pair
Sleeping Bag++	1 Each

NOTES:

+May be in survival kit or issued to the pilot in conjunction with the anti-exposure suit

++Only mandatory for units flying in Alaska 1 Sep to 30 Apr

Attachment 8 (Added-PACAF)
MINIMUM SURVIVAL KIT

Figure A8.1. Minimum Survival Kit

The following items are mandatory in the minimum survival kit used on UH-1, HH-60 aircraft:

Noun Quantity

Survival Radio, PRC and/or CSEL compatible series (w/spare battery)	1 each
First Aid Kit	1 each
Compass, Lensatic/Magnetic	1 each
Light, Marker, Distress, MS-2000 or SDU-5/E	1 each
Signal, Distress, MK-13/MK-124	3 each

NOTE:

+See AFI 11-301V2 for all other aircraft.

++ANG HH-60's are exempt from pre-positioning a minimum survival kit on A/C.

Attachment 9 (Added-PACAF)**GPS INSPECTION PROCEDURES**

A9.1. (PACAF) Garmin GPS receivers that have acquired satellite acquisition and downloaded almanac data must periodically reacquire satellite signals and update stored almanac data. Receivers that have been in storage for 90 days or longer will not automatically obtain satellite acquisition. The outdated almanac data must be cleared to force the receiver to obtain new almanac data. Pressing and holding the “page” button, then pressing the “power” button, and then releasing the “page” button, can accomplish this. Using this procedure requires approximately 10 to 15 minutes acquisition time.

A9.2. (PACAF) Approximately every 60 days obtain satellite acquisition. Allow the receiver to track the satellites for a minimum of 15 minutes. This will update the stored almanac data.

A9.3. (PACAF) AFE Superintendent will ensure the following 60 day inspection procedures are used for each Garmin GPS placed into service. Inspections will be IAW appropriate T.O.s, MAJCOM, Special Instruction (SPIN) notices, and theater guidance. Inspections will be tracked separately in unit database.

A9.3.1. **(PACAF)** Power on the receiver and obtain satellite acquisition.

A9.3.2. **(PACAF)** Allow receiver to track satellite for 15 minutes minimum from first satellite acquisition.

A9.3.3. **(PACAF)** Turn receiver off.

A9.3.4. **(PACAF)** Update inspection record.

A9.4. (PACAF) Units that store their Garmin GPS receivers will utilize the following procedures prior to placing the receivers in service. These procedures should be utilized from the area where the receiver will be operationally used.

A9.4.1. **(PACAF)** Obtain satellite acquisition and new almanac data by pressing and holding the “page” button, then pressing the “power” button, and then releasing “page” button. Allow the receiver to track satellites for 15 minutes from first satellite acquisition. Turn receiver off. Update inspection records.

A9.4.2. **(PACAF)** Inspect each receiver IAW paragraph A9.3 until the receiver is placed back into storage.

A9.4.3. **(PACAF)** System setup will be: mode normal, hours 24, adjust contrast to best view, backlight 15 seconds, and sound off. Navigation setup will be: position format hddd□mm’ss.s”, map datum WGS 84, CDI □□0.25, units nautical, and heading auto. Units deployed during contingency operations will review Special Instructions (SPINS) at the deployed location to validate GPS setup.

A9.4.4. **(PACAF)** Secure GPS receivers to survival vests using a 30-36 inch length of 100lb olive drab cord. Install an operational set and a minimum of two spare sets of batteries in the vest. Annotate GPS serial number on vest inspection records.

A9.4.5. **(PACAF)** Establish procedures to ensure GPS assets are controlled and safeguarded against damage, loss, or theft.

A9.5. (PACAF) Perform steps outlined in paragraph A10.4 prior to first flight upon arrival at deployed location to ensure almanac data is updated for the deployed location.