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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 all recommendations and forward the AF IMT 847 to the next echelon. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this instruction does not imply endorsement by the Air Force. **Records Disposition**. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/**.

(AETC) This supplement implements and extends the guidance of AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*, 25 February 2009. It establishes the AETC AFE program, and applies to AETC aircrews and AFE personnel (military, civilian, contractor, etc.) who fly in aircraft assigned or attached to organizations of this command. This supplement applies to Air Force Reserve Command (AFRC) and Air National Guard (ANG) units under AETC oversight (unless otherwise noted). The use of any manufacturer, commercial product, commodity or service in this publication does not imply endorsement by the Air Force. Ensure all records created as a result of processes prescribed in this publication are maintained according to AFMAN 33-363, *Management of Records*, and disposed of according to the Air Force Records Disposition Schedule located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/.** Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*, route AF Form 847s from the field through the appropriate functional's chain of command.

(12FTW) This publications implements and extends the guidance in AFI 11-301, Volume 1, and AETCSUP, *Aircrew Flight Equipment (AEF) Program*. This supplement will bring 12 OSS/OSL in compliance with AFI 11-301V1_AETCSUP, paragraph 1.3.3. which states, "Units will supplement this instruction within 180 days of this publication. AFE quality assurance evaluators will supplement this instruction to address the unique requirements of contract AFE operations." This supplement will apply only to the 12th Operations Group located at Randolph Air Force Base. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) AFMAN 33-363, *Management of Records*, and disposed of according to the Air Force Records Disposition Schedule located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/rims.cfm**. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication.*

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).

(AETC) This document has been substantially revised and must be completely reviewed. Major changes include guidance for the new Aircrew Flight Equipment (AFE) career field Air Force specialty code (AFSC) 1P0X1; merges and includes the former Aircrew Life Support (AFSC 1T1X1) and Survival Equipment (AFSC 2A7X4) career field throughout the supplement; instructs units to supplement instructions within 180 days of the date of publication (paragraph 1.3.3); updates HQ AETC Aircrew Flight Equipment site; modifies MAJCOM and other agency responsibilities, updates office symbols; and removed the term life support officers (LSO) to flight equipment officers (FEO) (paragraph 2.10.1); establishes timeframe of a minimum of 6 months or next scheduled inspection to maintain quality control documentation (paragraph 3.7.6); and adds information on aircrew clothing and equipment requirements (Attachment 3 (Added), Attachment 4 (Added), and Attachment 5 (Added)).

(12FTW) This instruction has been substantially revised and must be completely reviewed. Changes include adding 12th OSS AFE Community of Practice (Cop) (paragraph **1.4.7**.); who submits budget to AFE superintendent (paragraph **2.11.18**); who will use the 12th OSS Aircraft Survival and Flight Equipment Repairer/Supervisor Civilian Training Plan (paragraph **2.11.21**.); establishes who will forward AFE monitions list (paragraph **2.11.22**.); establishes AETC Form 500, *Physiological Incident Investigator's Checklist*, procedures (paragraph **2.11.24**); define trend program (paragraph **2.12.3**); establish procedures to track supply, equipment, and clothing expenditures (paragraph **3.3.4**); establish Quality Control Inspectors (QCI) procedures (paragraph **3.7.2.1**); added 12th OSS AFE Community of Practice (Cop) (paragraph **3.9.1.2**); added Personnel Evaluation procedures (paragraph **4.2.2.2.1**); identifies category of personnel that occasionally fly (paragraph **5.7.2**); establish a CTK and lost tool procedure program to control and account for tool in AFE section (paragraph **3.8.1**); added provision to use 12FTW Form 340, *Aircrew Flight Equipment Receipt*, (paragraph **6.6**); and added additional information in **Attachment 3**.

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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. **(AETC)** HQ AETC/A3OL is the overall waiver authority for this supplement. However, NGB/A3 and HQ AFRC/A3 are the waiver authorities for their subordinate units. AETC units will coordinate waivers through their numbered Air Force (NAF)/DO and HQ AETC/A3F or HQ AETC/A3Z as applicable to HQ AETC/A3OL. AFRC units will coordinate waivers through their NAF/A3 and the HQ AFRC/A3T, to AFRC/A3. ANG units will coordinate directly with NGB/A3. For waivers to unit-level supplements, the operations group commander (OG/CC) of the local unit generating the supplement will handle waivers to that supplemental guidance. **Note**: For AFRC and ANG, the term major command (MAJCOM) is understood to be the AFRC/A3 and NGB/A3, respectively.

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.

1.3.3. 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. **(AETC)** Units will supplement this instruction within 180 days of the date of publication. AFE quality assurance evaluators will supplement this instruction to address the unique requirements of contract AFE operations. Route supplements through the OG/CC for approval.

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.

1.4.3. 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. **(AETC)** Additional information can be found on the AETC AFE Community of Practice (CoP) at: **https://rso.my.af.mil/afknprod/ASPs/CoP/EntryCoP.asp?Filter=OO-OP-AE-24**.

1.4.7. **(12FTW)** Additional information can be found on the 12 OSS AFE Community of Practice (CoP) at: **https://wwwd.my.af.mil/afknprod/ASPs/CoP/EntryCoP.asp?Filter=AE-OP-00-87**

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.

2.9.3. 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.

2.9.5.1. **(AETC)** Technical Order (TO) 14-1-1, *U.S. Air Force Personal Equipment and Aircrew Life Support Ensemble Configurations,* contains a listing of equipment items the Aeronautical Systems Group has qualified safe to fly for a given aircraft (see Attachment 4 (Added)). Items identified as qualified (Q) are authorized for use on those aircraft as indicated.

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.

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

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

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

2.9.18. 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.

2.9.19. 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.

2.9.20. 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*.

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

2.9.22. 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. 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.

2.9.23. **(AETC)** The MAJCOM working group will meet annually no later than (NLT) 31 January in preparation of the annual AFE Executive Council meeting.

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

2.9.25. 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.

2.9.25. **(AETC)** Conduct a staff assistance visit (SAV) to AETC units not to exceed 30 months from the last SAV.

2.9.26. 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.

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

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

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

2.9.27.3. Notifies unit Operations Group commander or equivalent of approved "funded" requirements and ensures program needs are met.

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

2.9.29. 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. **(AETC)** The flight equipment officer (FEO) must be a rated officer qualified and current in his or her primary aircraft of assignment and is required to complete training requirements as defined in Table 4.1 of the basic publication.

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.

2.10.2. 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.

2.10.4. 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.

2.10.6. 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.

2.10.8. 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.

2.10.9. 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.

2.10.10. 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.

2.10.14. 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.

2.11. 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**.

2.11.2. 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.

2.11.4. 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. **(AETC)** Conduct task evaluations during annual assessments. Question-and-answer sessions do not qualify as task evaluations. Task evaluations must include a total review of applicable guidance from associated TOs and AFIs.

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. **(AETC)** Review deficiencies quarterly.

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

2.11.9. **(AETC)** Conduct initial task certifications within 3 months of assignment as AFE section noncommissioned officer in charge and document in training records.

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.

2.11.13. 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.

2.11.15. 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-AETC)** The AFE superintendent is the OG/CC point of contact for AFE functional responsibilities, manpower and/or manning requirements, and assignment of AFE personnel in the wing or group.

2.11.18. **(Added-AETC)** The FEO and AFE superintendent must budget for and attend annual AFE conferences and symposiums to ensure maximum participation.

2.11.18. **(12FTW)** AFE Supervisors will submit their budget to the AFE Superintendent by 30 August of each year.

2.11.19. **(Added-AETC)** All AFTO Forms 22, *Technical Manual (TM) Change Recommendation and Reply;* AF Forms 847, *Recommendation for Change of Publication;* and suggestions pertaining to aircrew flight systems or equipment will be evaluated by the AFE superintendent prior to submittal to the next higher level. (AFTO Form 22 is prescribed in TO 00-5-1, *Technical Manual AF Technical Order System.)* The host base safety office will review and process reports as required by AFI 91-204, *Safety Investigations and Reports,* and applicable supplements. Ensure the applicable MAJCOM AFE function is furnished an information copy of any report not specifically addressed to that office.

2.11.20. **(Added-AETC)** When requested, local rescue agencies will be provided training on the functional use and operation of aircrew flight equipment that may be encountered during local rescue operations. Local agencies should be apprised of any changes in equipment type or operation.

2.11.21. **(Added-AETC)** Ensure all assigned AFE program personnel, to include senior noncommissioned officers assigned to a flying squadron, maintain an accurate on-the-job training (OJT) record (or equivalent for contractors). **Note:** Not applicable to ANG unless in retraining status.

2.11.21. **(12FTW)** AFE sections will use the 12 OSS Aircraft Survival and Flight Equipment Repairer/Supervisor Civilian Training plan to conduct on-the-job training.

2.11.22. **(Added-AETC)** Ensure serviceability of AFE munitions. Publish, distribute, and update restricted munitions listing based on information contained in the 784th Combat Sustainment Group website accessible through the AF portal at **https://www.my.af.mil/ammoprod/wm**.

2.11.22. **(12FTW)** The AFE Superintendent will send a quarterly serviceability listing of AFE munitions to section supervisors.

2.11.23. **(Added-AETC)** Ensure compliance with all safety standards to include, but not limited to, Air Force Occupational, Safety, and Health Standard Training, documentation, and increased precautions for storage of lithium batteries.

2.11.24. **(Added-AETC)** Ensure equipment involved in physiological incidents is immediately segregated until a qualified technician can inspect the equipment for serviceability and proper fit to the affected aircrew according to applicable TOs. Complete an AETC Form 500, *Physiological Incident Investigator's Checklist,* for each physiological incident. Maintain this form on file for 1 year.

2.11.24. **(12FTW)** Ensure all AETC Form 500, *Physiological Incident Investigator's Checklist*, is submitted through the AFE Superintendent, AFE QA Inspector and Wing Trainer for their review.

2.11.25. **(Added-AETC)** Ensure adequate AFE equipment is available to issue aircrews according to the *Education and Training Course Announcements (ETCA)* located at **https://etca.randolph.af.mil**/. Maintain a three- to six-class (as deemed appropriate by the unit) backup supply of all AFE issued items to ensure aircrew production is not interrupted due to unforeseen supply difficulties.

2.11.26. **(Added-AETC)** In preparation for the annual higher headquarters (HHQ) aircrew performance working group (APWG) meeting, ensure the group FEO or AFE superintendent (or contractor and/or civilian equivalent) hosts wing working group meetings as required with representatives involved in aircrew protection responsibilities. Membership should include, but is not limited to egress; aerospace medicine; aerospace physiology; civil engineering readiness; logistics; survival, evasion, resistance, and escape; safety; and aircrew representation. The intent is to bring attention to and address aircrew protection issues. Forward those issues that cannot be resolved to HQ AETC/A3OL NLT 30 November annually for discussion and resolution at the HHQ APWG meeting. **Note:** Optional for ANG units.

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.

2.12.1.1. **(AETC)** Quality Management Information System (QMIS) is authorized for use.

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).

2.12.2. 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.

2.12.3. 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.

2.12.3.1. **(Added-12FTW)** Trend Analysis:

2.12.3.1.1. **(Added-12FTW)** The section supervisor will track discrepancies using trend analysis summary worksheets for each month. Each individual will review monthly trend analysis reports. Any identifiable trends will be noted and briefed to all personnel. AF Form 2420, *Quality Control Inspection Summary* will be maintained for 6 months and disposed of IAW the Air Force Records Disposition Schedule located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/rims.cfm**.

2.12.3.1.2. **(Added-12FTW)** Definitions of major and minor findings.

2.12.3.1.2.1. **(Added-12FTW)** 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.

2.12.3.1.2.2. **(Added-12FTW)** 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.

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

2.12.5. 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. **(AETC)** Maintain a record of applicable time compliance technical orders for 2 years from date of completion, unless otherwise stated in AFMAN 36-363.

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. **(AETC)** Publish unit TO options and post them in the TO library. Establish a familiarization program to ensure AFE personnel are knowledgeable of TOs, TO options, publications, and messages.

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. **(AETC)** Route status of open discrepancies to the FEO through the AFE superintendent quarterly. Contracted operations will route reports according to procedures outlined in the contractor's statement of work.

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.

2.14. 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.

2.14.2. 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.

2.15.14. **(AETC)** Several AFE items, including MK-13/MK-124 flares, A/P25S-5/A signal kits, and knives are prohibited aboard commercial aircraft. Aircrew members who must travel commercially with their flight gear will ensure all prohibited items have been removed before checking the equipment in as luggage.

2.15.14. **(12FTW)** The 12FTW Form 340, *Aircrew Flight Equipment Receipt* may be used as the primary document for issuing PSKs and LPUs.

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-AETC)** Accomplish technician task evaluations as an integral part of each unit AFE program self-assessment. Forward all copies of the self-assessment to the FEO and AFE superintendent. This program assessment will not be conducted concurrently with AFE superintendent SAVs.

2.15.19. **(12FTW)** AFE Sections will use as a minimum the most current 12th OSS AFE Self Inspection Checklist; this checklist can be found on the 12th OSS AFE Community of Practice (CoP) at: **https://wwwd.my.af.mil/afknprod/ASPs/CoP/EntryCoP.asp?Filter=AE-OP-00-87**

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.

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

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 **https://www.my.af.mil/gcss-af61a/afrims/afrims/**.

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.

3.3. 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.

3.3.4. **(AETC)** Monitor supplies from date ordered to date received through use of automated supply products. Maintain an accurate listing of all backordered items. Ensure Air Force Equipment Management System TORC screen authorizations are accurate and reviewed semiannually.

3.3.4. **(12FTW)** Operations Group (OG) Resource advisor will make available on the OG server all Cost Per Flying Hour (CPFH) spreadsheets required for tracking/reconciling purchases made with their Government Purchase Card (GPC) or through Base Supply.

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).

3.3.6. 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.

3.3.8. 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. **(AETC)** Formal training units may use AETC Form 120, *Training Equipment List*, in lieu of allowance standards, to establish classroom training equipment authorizations. Operational equipment requirements will be based on applicable allowance source codes.

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

3.3.9. **(AETC)** Send copies of submitted supply difficulty and mission impact memorandums, along with supply responses, to the AFE superintendent. Contract AFE units will forward a copy to their local quality assurance office.

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, E*quipment Inventory, Status, and Utilization Reportin*g, 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.

3.7.1. **(AETC)** Training and certification of quality inspectors will include orientations with the necessary support agencies listed in AFI 11-301, Volume 1. Inspectors must be certified on the task or equipment item being evaluated.

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-12FTW)** Procedures:

3.7.2.1.1.1. **(Added-12FTW)** Quality Control Inspectors (QCI) will be trained and certified IAW AFI 11-301V1.

3.7.2.1.1.2. **(Added-12FTW)** After completion of routine inspections, each technician will place completed inspection records in assigned area for computer update or QCI inspections.

3.7.2.1.1.3. **(Added-12FTW)** Designated QCI Inspectors will remove records and perform QCI inspections from a random sampling of as many technicians as possible.

3.7.2.1.1.4. **(Added-12FTW)** All efforts will be made to complete quality control inspections on the same day the routine inspection is completed. Exception: equipment inspected on late shift may be QCI'd the following day.

3.7.2.1.2. **(Added-12FTW)** Corrective Action:

3.7.2.1.2.1. **(Added-12FTW)** All discrepancies will be corrected to insure integrity of the equipment, safety to aircrews, and timely feedback to technicians.

3.7.2.1.2.2. **(Added-12FTW)** Major discrepancies will be corrected on the spot, or else the equipment will be removed from service. Minor discrepancies will be corrected no later than the following duty day.

3.7.2.1.2.3. **(Added-12FTW)** Specific action taken, date completed, and initials of individual making the correction will be annotated next to the affected discrepancy and will be cleared by annotating complete corrective action taken and initialed. “Corrected or Complied With (C/W)” is not acceptable.

3.7.2.1.2.4. **(Added-12FTW)** Supervisors will review AF Form 2420, *Quality Control Inspection Summary* to insure timely compliance of corrective actions. It is the ultimate responsibility of each individual to expeditiously correct all applicable discrepancies found during QCI.

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. **(AETC)** The AFE superintendent and AFE quality assurance (QA) inspector will define critical steps to be checked during In-Progress Inspections.

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.

3.7.6. 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. **(AETC)** Maintain quality control documentation until next scheduled inspection or for a minimum of 6 months.

3.7.6.1. **(Added-AETC)** AFE superintendents, along with the AFE QA inspectors, will establish criteria for identifying positive and negative trends. Document identified positive and negative trends monthly.

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).

3.8.1.1. **(Added-12FTW)** Each CTK will be assigned an individual identification number. A master listing will be accomplished for each shop CTK and approved by the Superintendent.

3.8.1.2. **(Added-12FTW)** The tools or equipment contained in a CTK will either be etched or stamped with the assigned CTK number. Small tools or items which cannot be marked (i.e. drill bits, allen wrenches), and are maintained in a container, will have the container marked with the CTK number and the quantity of tools stored in the container.

3.8.1.3. **(Added-12FTW)** Develop and use a color-coding system to identify tools removed from CTK's. The purpose of this system is to enable a quick visual inventory and maintain positive control of tools. A color chit will be used to meet this requirement. Information regarding the removal of a tool will be documented on AETC Form 1042, *CTK Tool Checklist* in conjunction with a marker identifying the location of the removed tool. (i.e. TMDE, missing, on order).

3.8.1.4. **(Added-12FTW)** Do not use markers or chits for CTK's that have a FOD potential outside the Aircrew Flight Equipment shop.

Note: For dispatch to/from flightline, CRU-60 oxygen connector will be a one for one item. AFE personnel will issue one from their CTK and take the bad one back to their section to inspect/condemned/replace as required, 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".

3.8.3. **(12FTW)** The following identifiers will be assigned to each section:

3.8.3.1. **(Added-12FTW)** 559FTS – RJLS0XXXX

3.8.3.2. **(Added-12FTW)** 560FTS – RJLS1XXXX

3.8.3.3. **(Added-12FTW)** 99FTS – RJLS2XXXX

3.8.3.4. **(Added-12FTW)** 435FTS – RJLS3XXXX

3.8.3.5. **(Added-12FTW)** Survival Equipment – RJ21XXXXX

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.

3.8.5.1. **(Added-12FTW)** CTK custodians are responsible for tool and equipment accountability and control within their respective tool storage facility. Custodians will be identified by appointment letters generated by the Aircrew Flight Equipment Superintendent.

3.8.5.2. **(Added-12FTW)** Control and accountability for tools will be maintained via AETC Form 1042, *CTK Tool Checklist* and AF Form 1297, *Temporary Issue Receipt*. By utilizing these forms, the CTK custodian must be able to determine at all times what tools and equipment are checked out and to whom.

3.8.5.3. **(Added-12FTW)** CTK inventories will be accomplished daily. Account for all CTK's and individual issue tools at the beginning and end of each shift.

3.8.5.4. **(Added-12FTW)** At no time will tools from CTK's be loaned to unauthorized personnel.

3.8.5.5. **(Added-12FTW)** A comprehensive inventory will be performed on each CTK no less than annually, or whenever a CTK custodian changes. Check for condition, identification markings, and the accuracy of the CTK contents listing. Document the inventory on the appropriate form located in the master listing binder. The CTK custodian will maintain the current copy on file.

3.8.6. **(Added-12FTW)** CTK Security:

3.8.6.1. **(Added-12FTW)** CTK's will be stored in a secure area.

3.8.6.2. **(Added-12FTW)** Locks are not required for individual issue tools or equipment located in a secure storage facility.

3.8.7. **(Added-12FTW)** Lost Tool Reporting.

3.8.7.1. **(Added-12FTW)** IAW AFI 21-101 notify the supervisor immediately if a tool/item is missing in a non-dispatched tool kit. If on flightline notify Superintendent/QA/MOC.

3.8.7.2. **(Added-12FTW)** Initiate an AETC Form 138, *Lost Tool or Item Investigation Record*, obtain a control number from MXQ. Annotate the control number on the upper right corner of the form.

3.8.7.3. **(Added-12FTW)** Whether or not the missing tool is found, route the completed original AETC Form 138 to MXQ for filing. The form must be signed at the bottom by the individual who lost the tool, the supervisor or superintendent, the Quality Assurance chief, or his designated representative. The completed form must reach the office of the Director of Maintenance (DOM) within three working days of the incident closing, unless an extension is granted by the DOM. After review by the DOM, the AETC Form 138 will be returned to the Quality Assurance office for filing.

3.8.8. **(Added-12FTW)** Foreign Object (FO) Prevention in Cockpits and Enclosed Areas.

3.8.8.1. **(Added-12FTW)** Personnel will empty all clothing pockets and remove all jewelry prior to entering all aircraft cockpits to minimize the potential for FO.

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. **(AETC)** Units will prepare local checklist according to TO 00-5-1.

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. **(AETC)** The AETC TO options list is accessible through the HQ AETC AFE CoP links at **https://rso.my.af.mil/afknprod/ASPs/CoP/EntryCoP.asp?Filter=OO-OP-AE-24**.

3.9.1.2. **(12FTW)** The AETC/Randolph AFB Technical Order options list is accessible through the 12th OSS AFE Community of Practice (CoP) at: **https://wwwd.my.af.mil/afknprod/ASPs/CoP/EntryCoP.asp?Filter=AE-OP-00-87**

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.

3.10. 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, reparable, and unserviceable items. Provisions will be made to protect shelf stock components from dust, impurities, and direct sunlight.

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.

3.12.5. 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.

3.16. 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.

3.17. 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.

3.18.4. 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*.

4.1.2. **(Added-AETC) Initial Task Evaluation and/or Certification Upgrade and/or Job Qualification Training:**

4.1.2.1. **(Added-AETC)** As a minimum, initial task evaluations and/or certifications for upgrade to 5- or 7- skill levels will be conducted on all Air Force core tasks, applying to the unit's specific AFE equipment and mission design series (MDS) aircraft as identified in the wing master task listing. All evaluations must be completed before upgrading individuals to the 5- or 7- level (or equivalent for contractors).

4.1.2.2. **(Added-AETC)** Initial task evaluations and/or certifications on core tasks may be certified by any qualified certifying official.

4.1.2.3. **(Added-AETC)** The only documentation required on initial task certifications (after training and completion of the task evaluation) is to sign off the item in the specialty training standard in part II of the career field education and training plan (CFETP). If an item is not included in the specialty training standard, add the item to AF IMT 797, *Job Qualification Standard Continuation /Command JQS,* and place the form in the training record.

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.

4.2. 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.

4.2.1.2. 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.)

4.2.1.3. **(AETC)** Contracted AFE and parachute shops are exempt.

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.

4.2.2.2.1. **(Added-12FTW)** Personnel Evaluations (PE): The following sections contain the Methods and Procedures for Inspecting, Evaluating and Rating personnel evaluations.

4.2.2.2.1.1. **(Added-12FTW)** Personnel Evaluation procedures are rated Pass or Fail. A rating applies only to the specific task evaluated. PEs are documented on AF Form 803, *Report of Task Evaluations*.

4.2.2.2.1.2. **(Added-12FTW)** The PE program assesses the effectiveness of the training programs, the competence of a technician and the adequacy of technical and procedural data. All AFE technicians will have at least one PE every 24 months.

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. **(AETC)** QMIS is authorized for contractor use.

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.

4.2.4. 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).

4.2.4.2. 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

COURSE TITLE	1P031	1P051	1P071	1P091	AFECTI	T1P0X1	FEO
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.

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 (1P0X1) 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. **(AETC)** AETC units will assign and certify aircrew flight equipment continuation training (AFECT) instructors as follows:

5.2.2.1.1. **(Added-AETC)** The group and/or squadron FEO or AFE superintendent will certify all AFECT instructors on each event initially and on at least one event every 18 months thereafter. Vary training events used for certifications to avoid certifying instructors on the same training events each time.

5.2.2.1.2. **(Added-AETC)** Use AETC Form 281, *Instructor Evaluation Checklist*, to document initial evaluations when certifying instructors. Use AETC Form 281 or AETC Form 620, *Academic Instructor Monitoring Checklist*, for all subsequent evaluations.

5.2.2.1.3. **(Added-AETC)** The group FEO or AFE superintendent will certify enlisted instructors according to this instruction and standard OJT guidance (for example, CFETP). The group and/or squadron FEO will certify all other AFECT instructors (officer, civilian, and contractor). Certification letters will specify training events (such as LL03, LL04) each instructor is certified to teach.

5.3. AFECT Event Descriptions. Lead Commands, IAW AFPD 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.

5.3.2. 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.

5.3.3. **(AETC)** Units will incorporate the onscene commander (OSC) briefing into LL02 and LL03 lessons. OSC briefing slides are available at **https://www-r.aetc.af.mil/do/dof/download.asp**.

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 (1T0X1) 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*.

5.4. 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.

5.4.4. 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).

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

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.

5.5.6. **(AETC)** Visiting aircrew to include HQ AETC/IG inspectors and 19 AF stan/eval flight evaluators, when performing observation and/or evaluation duties, must receive emergency egress training and unit-specific aircrew equipment training prior to the first flight at the inspected unit. Units may credit parachute descent training and aircraft specific emergency egress training received at other units during the past 12-month period provided documentation of currency can be obtained and only minor differences in equipment exist. If minor equipment differences exists (for example, parachute harness releases), training will be provided to ensure users are aware of the differences and can safely operate the equipment. For inspectors not currently qualified in an ejection seat aircraft, emergency egress currency expires at the end of the unit's inspection.

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.

5.5.8. **(AETC)** The OG/CC will determine acceptable training intervals. However, training intervals will not be less restrictive than those outlined for applicable MDS and/or in ready aircrew program requirements.

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).

5.5.12. **(Added-AETC)** Training currencies are valid through the last day of the month in which the training expires.

5.5.13. **(Added-AETC)** Personnel who fly in an ejection seat aircraft other than their primary aircraft will receive applicable egress training before flying in that aircraft. For example, a T-6 qualified pilot will receive T-38 egress training before flying in the T-38. This training expires with primary seat training.

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. **(AETC)** OG/CC will identify categories of personnel that fly occasionally to perform official duties. These personnel may be placed on a 60-day currency after meeting the following requirements:

5.7.2. **(12FTW)** The following categories of personnel that fly occasionally to perform official duties are: Combat Aerial Photographers, Aerospace Physiologists, Pilots in awaiting permanent change of station, Casual Students awaiting Undergraduate Pilot Training (UPT), Rated aircrews who have completed UPT and are awaiting follow-on training such as Introduction to Fighter Fundamentals, B-Course training, etc.

5.7.2.1. **(Added-AETC)** Member must complete aircrew flight equipment training (see Attachment 3 (Added)). Also, the member must complete emergency egress and parachute descent training applicable to the assigned MDS a minimum of three times during a 60-day period.

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.

5.8. 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.

5.8.1. **(AETC)** Other event identifiers are listed in AFI 11-202, Volume 1/AETC Supplement, *Aircrew Training*.

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.

5.8.2. **(AETC)** Keep rosters for a minimum of 2 years.

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.

5.9.2. **(AETC)** When off station and in the absence of qualified egress and/or maintenance personnel, instructor pilots certified to conduct egress training are permitted to make the ejection seat safe according to applicable MDS procedures to train incentive and/or orientation flyers. Additional plastic zip ties or strap fasteners may be used to prevent inadvertent removal of safety pins provided the appropriate form entries are made. Safety pins will remain in place throughout the entire training exercise.

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.

5.9.5. 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.

5.9.5. **(AETC)** Units are authorized to use operational equipment for training, provided the training does not damage, destroy, or bring into question 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 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 un-personalized 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 units 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. **(AETC)** Document annual reviews on the front of each AFE master lesson plan and AFECT lesson plan.

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.

Chapter 6

AUTOMATED LIFE-SUSTAINING EQUIPMENT RECORDS & TRACKING SYSTEM (ALERTS) AND AIRCREW PROTECTION WEBSITE (APWEB)

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.

6.2.2. 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.

6.3. 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.

6.6. 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*

6.6. (AETC) Adopted Forms.

AF IMT 797, *Job Qualification Standard Continuation/Command JQS*

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 22, *Technical Manual (TM)*

AETC Form 120, *Training Equipment List*

AETC Form 281, *Instructor Evaluation Checklist*

AETC Form 620, *Academic Instructor Monitoring Checklist*

6.7. (Added-AETC) Prescribed Forms.

AETC Form 500, *Physiological Incident Investigator's Checklist*

12FTW Form 340, Aircrew Flight Equipment Receipt

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

(AETC)

RICHARD T. DEVEREAUX, Brigadier General, USAF
Director of Intelligence, Operations
and Nuclear Integration

(12FTW)

RICHARD M. MURPHY, Colonel, USAF
Commander, 12th Flying Training Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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(Added-AETC) AS 016, *Special Purpose Clothing and Personal Equipment*, 2 August 2006

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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.

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

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

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

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

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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

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(Added-AETC) TO 14P3-5-91, *Operation and Maintenance Instructions with Illustrated Parts Breakdown, CWU-74/P Flyer's Anti-Exposure Coverall, 1370AS403-(101)*, 8 October 2008

(Added-12FTW) TO 14P3-6-121, *Anti-G Cutaway Garment Type CSU-13B/P*

(Added-AETC) TO 14S3-1-3, *Types and No. of Individual Survival Kit Containers and Life Rafts to Be Used In Various Type Aircraft*, 20 January 2003

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

(Added-AETC) APWG—aircrew performance working group

ARC—Air Reserve Component

ARMS—Aviation Resource Management System

AS—Allowance Standard

BFT—Basic Fighter Training

BOI—Basis Of Issue

C—Celsius

(Added-12FTW) C/W— Complied With

CFETP—Career Field Education and Training Plan

(Added-AETC) CoP—Community of Practice

(Added-12FTW) CPFH— Cost Per Flying Hour

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

(Added-12FTW) DOM— Director of Maintenance

DRU—Direct Reporting Unit

DSN—Defense Switched Network

EEIC—Element of Expense/Investment Code

EPT—Egress Procedures Trainer

(Added-AETC) ETCA—education and training course announcements

F—Fahrenheit

FAA—Federal Aviation Administration

FEO—Flight Equipment Officer (Rated)

FM—Functional Manager

(Added-12FTW) FO— Foreign Object

FOA—Field Operating Agency

FOD—Foreign Object Damage

(Added-12FTW) FTS— Flying Training Squadron

FTU—Formal Training Unit (Flying)

(Added-12FTW) GPC— Government Purchase Card

HABD—Helicopter Aircrew Breathing Device

(Added-AETC) HCV—high contrast visors

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

(Added-AETC) LPU—life preserver unit

MAJCOM—Major Command

MDS—Mission Design Series

MFM—MAJCOM Functional Manager

(Added-12FTW) MOC— Maintenance Operating Center

(Added-12FTW) MXQ— Maintenance Quality Assurance

N/A—Not Applicable

NAF—Numbered Air Force

NCO—Noncommissioned Officer

NCOIC—Noncommissioned Officer In Charge

(Added-AETC) NLT—no later than

NSN—National Stock Number

NVD—Night Vision Devices

NVG—Night Vision Goggles

(Added-12FTW) OG— Operations Group

(Added-AETC) OG/CC—operations group commander

OI—Operating Instruction

OJT—On-The-Job Training

OPLAN—Operations Plan

OPR—Office of Primary Responsibility

(Added-AETC) OSC—onscene commander

OSS—Operations Support Squadron

(12FTW) OSS— Operations Support Squadron

OSS&E—Operational Safety, Suitability, & Effectiveness

(Added-12FTW) OSS/OSL— Aircrew Flight Equipment Flight

OT&E—Operational Test and Evaluation

PAI—Primary Aircraft Inventory

PCS—Permanent Change of Station

(Added-12FTW) PE— Personnel Evaluations

(Added-AETC) PLD—personnel lowing device

POC—Point of Contact

PQDR—Product Quality Deficiency Report

(Added-AETC) PSK—parachute spacer kit

QA—Quality Assurance

(Added-12FTW) QCI— Quality Control Inspector

QI—Quality Inspector

(Added-AETC) QMIS—Quality Management Information System

(Added-AETC) SAR—search and rescue

(Added-AETC) SAV—staff assistance visit

(Added-AETC) SJA—staff judge advocate

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

(Added-12FTW) UPT— Undergraduate Pilot Training

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 **figure**s **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.

AN/AVS-9G-TG
NIGHT VISION DEVICE
CAGE: 13567
Lot No: ABC06D001-001
Ser No: 11195
P/N: 275504-1
CNCT#: FA8522-04-D-0015
DOM: 31 May 2006

Figure 2. Sample UID SERIAZLIZED LOT BATCH Data Stream.

[)> $^{R}_{S}$ 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}o$_{T}$

Figure 3. Sample UID Serialized Data Plate/Label.

Noun: Strobe Light
CAGE: 13567
P/N: 275504-1
Ser No: 11195
CNCT#: FA8522-04-D-0015
DOM: 31 May 2006

Figure 4. Sample UID Serialized Data Stream.

[)> $^{R}_{S}$ 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}o$_{T}$

Figure 5. Sample Non UID/Non Serialized Lot Batch Data Plate/Label.

Noun: Screw

CAGE: 13567
Lot No: ABC06D001-001
P/N: 275504-1
CNCT#: FA8522-04-D-0015
DOM: 31 May 2006

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}o$_{T}$

Attachment 3 (Added-AETC)

AIRCREW CLOTHING AND EQUIPMENT

A3.1. (Added-AETC) Purpose. This chapter establishes minimum aircrew clothing requirements, defines who may wear the MC-1 knife and when, and outlines minimum requirements for maintenance and inspection of aircrew flight equipment.

A3.2. (Added-AETC) Minimum Clothing Requirements. Units will comply with the following directives for clothing and equipment requirements. See Attachment 4 (Added) for minimum requirements of aircrew clothing and AFE worn during flight.

A3.2.1. **(Added-AETC) 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.

A3.2.2. **(Added-AETC) Flight Coveralls, Nomex®.** To comply with the intent of AFI 11-202, Volume 3, *General Flight Rules*, and TO 14P3-1-112, *Maintenance Instructions Nomex® Flight Gear, Coveralls, Types CWU-27/P and CWU-28/P and Gloves, Type GS/FRP-2, Jacket, Flyers Summer Type CWU-36/P, Jacket, Flyers Winter Type CWU-45/P, Hood, Winter, Flyers (CWU-17/P Jacket), Trousers, Flyers, Extreme Cold Weather, CWU-18/P*, the outer layer of clothing will be made of fire retardant material. Coveralls listed in TO 14P3-1-112; TO 14P3-1-131, *Operation and Maintenance Instructions with Illustrated Parts Breakdown--Aircrew Chemical-Defense Ensemble;* TO 14P3-5-61, *Operation, Service, and Maintenance Instructions Quick-Donning Anti-Exposure Flying Coverall Type CWU-16/P;* TO 14P3-5-81, *Use, Inspection, Fitting, and Maintenance Instructions--Anti-Exposure Assembly, Type CWU-21/P or CWU-21A/P Anti-Exposure Suit;* and TO 14P3-5-91, *Operation and Maintenance Instructions With Illustrated Parts Breakdown, CWU-74/P Flyer's Anti-Exposure Coverall, 1370AS403-(101),* 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.

A3.2.3. **(Added-AETC) Flight Jackets.** The unit commander determines seasonal requirements. Flying jackets listed in Allowance Standard (AS) 016, *Special Purpose Clothing and Personal Equipment,* and TO 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, *Dress and Personal Appearance of Air Force Personnel.* **Note:** Allowance standards are available online through the Air Force Equipment Management System (**https://earms2.wpafb.af.mil/sites/asrs/Home.asp**).

A3.2.4. **(Added-AETC) Flight Gloves.** Nomex® flight gloves listed in AS 016 and TO 14P3-1-112 are the only gloves aircrews are authorized to wear during flight. As a minimum, aircrews 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.

A3.2.5. **(Added-AETC) Flight Boots.** The primary aircrew boots, as authorized in AS 016, are the FWU-3/P, FWU-8/P, flyer boots, and the lightweight Belleville® models 690 sage green waterproof boot, and Belleville® 700, flight certified waterproof combat boot, 770, USAF certified winter flight boot, and 790 USAF flight approved waterproof combat 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.

A3.2.6. **(Added-AETC) Extreme Cold Weather Trousers.** Trousers, flyers, Nomex® (CWU-18/P) and cold weather coverall (CWU-64/P) are authorized for issue as a unit option.

A3.2.7. **(Added-AETC) MC-1 Survival Knife.** Any USAF aircrew member may wear the MC-1 knife for flying duties as long as it remains on the flight uniform.

A3.2.7.1. **(Added-AETC) Responsibility of the Aircrew Member.** Aircrew members have the same responsibility for their survival knives that security police have for their side arms. Aircrew members are subject to military and civil penal action if they unsheathe the MC-1 knife outside of a survival or training situation.

A3.2.7.2. **(Added-AETC) Action in Case of Civil Apprehension**. If a civil officer arrests an aircrew member who is wearing the survival knife as part of the flight uniform, the aircrew member will:

A3.2.7.2.1. **(Added-AETC)** Not resist apprehension. Comply with the civil officer's instructions.

A3.2.7.2.2. **(Added-AETC)** Explain to the civil officer that the knife is part of his or her authorized flight uniform.

A3.2.7.2.3. **(Added-AETC)** Notify the nearest Chief of United States Military Security Forces, who in-turn contacts the staff judge advocate (SJA) of the nearest military installation. The SJA, in turn, reports the incident to HQ USAF.

A3.3. (Added-AETC) 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 according to applicable TO guidance, approved commercial manuals, and applicable AETC directives. Air Force aircrew members will be allowed to perform permanent change of station with, as a minimum, helmet, mask, G-suit, G-vest, and anti-exposure suits provided the items are required for flying duties at their next assignment location.

A3.3.1. **(Added-AETC)** Aircrew helmets will be used as required and inspected and maintained according to applicable 14P-series TOs.

A3.3.2. **(Added-AETC)** 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. Basic fighter training, FTU students, and units without a mobility commitment are exempt from this requirement.

A3.3.3. **(Added-AETC)** 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 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.

A3.3.4. **(Added-AETC)** Aircrew members will wear or use helmet-mounted devices (Joint Helmet Mounted Cueing System, NVGs, laser eye protection, and high contrast visors [HCV]) as required to perform specific missions. Inspect and maintain these devices according to appropriate TOs and AETC guidance.

A3.3.5. **(Added-AETC)** HCV are approved for use according to 14P3 series TOs. Maintain a copy of the flight surgeon's authorization memorandum for each aircrew member authorized to use HCVs.

A3.3.6. **(Added-AETC)** 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.

A3.3.7. **(Added-AETC)** The flight surgeon or optometry clinic will validate the vision of AFE technicians to ensure they meet visual requirements (corrected to 20/20) for maintaining NVGs. Members will obtain the memorandum from the flight surgeon or optometry clinic stating vision requirements are met.

A3.3.8. **(Added-AETC)** Where applicable, squadron commanders will ensure an area is designated for use by aircrew members to perform NVG preflight operations.

A3.3.9. **(Added-AETC)** Anti-G garments are required during all flights in aircraft equipped with anti-G systems when 2 or more "Gs" are anticipated.

A3.3.10. **(Added-AETC)** 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.

A3.3.11. **(Added-AETC)** Crewmembers must wear the combined advanced technology enhanced designed "G" ensemble (COMBAT EDGE) on all flights where 6 Gs or more is preplanned or anticipated and assigned aircraft are appropriately modified to accommodate COMBAT EDGE equipment. Use the CRU-60/P or CRU-94/P oxygen connector in all equipment configurations.

A3.3.12. **(Added-AETC)** Units that do not have hook blade knives installed on a riser will install an MC-1 knife or hook blade knife in a G-suit pocket. For flights where the G-suit is not worn, install the knife in the flight suit pocket.

A3.3.13. **(Added-AETC)** Aircrews and passengers will only wear authorized and approved anti-exposure suits.

A3.3.14. **(Added-AETC)** For nonejection-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) or (15.5 Celsius (C)) or less.

A3.3.15. **(Added-AETC)** For **e**jection seat aircraft, crewmembers will wear constant wear anti-exposure suits on any preplanned overwater flight when the water temperature is 60 °F or 15.5 °C or less. If the water temperature ranges between 60 °F (15.5 °C) and 51 °F (10.5 °C), and the local air temperature is 70 °F (21.2 °C) or greater, the unit commander may waive the requirement to wear the anti-exposure suit after considering the following factors:

A3.3.15.1. **(Added-AETC)** Climate zone and existing weather throughout range of flights (reference TO 14P3-5-81/91).

A3.3.15.2. **(Added-AETC)** Operational requirements.

A3.3.15.3. **(Added-AETC)** Number and type of aircraft participating in sortie.

A3.3.15.4. **(Added-AETC)** Time of flight over water.

A3.3.15.5. **(Added-AETC)** Distance from land.

A3.3.15.6. **(Added-AETC)** Mission altitude.

A3.3.15.7. **(Added-AETC)** Risk based on type of sortie.

A3.3.15.8. **(Added-AETC)** Degree of surveillance over the mission area.

A3.3.15.9. **(Added-AETC)** Location, availability and capability of search and rescue (SAR) forces.

A3.3.15.10. **(Added-AETC)** Winds, wave height, and their impact on SAR operations.

A3.3.16. **(Added-AETC)** All tilt and/or rotary-wing aircraft aircrews will wear the helicopter emergency egress device during overwater flights when operating outside the autorotational distance from shore.

A3.3.17. **(Added-AETC)** Aircrew members and passengers of ejection seat and single engine aircraft will wear life preserver units (LPU) on all overwater to include cross-country flights. Ensure designated LPUs are available during all overwater flights on multiplace aircraft.

A3.3.18. **(Added-AETC)** According to paragraph A3.3.16 (Added), wear LPUs if any portion of the flight, including takeoff and landing, is outside power-off glide or autorotational distance from land.

A3.3.19. **(Added-AETC)** Only use authorized and approved survival kit and/or vest components. Ensure they are inspected according to appropriate TOs and AETC directives, to include manufacturer's instructions.

A3.3.20. **(Added-AETC)** Assemble, maintain, and use survival kits authorized in TO 14S3-1-3, *Types and No. of Individual Survival Kit Containers and Life Rafts to Be Used In Various Type Aircraft*, and this publication must be assembled, maintained, and used according to directives. Kit configurations will be according to applicable tables listed in AFI 11-301, Volume 2, *Maintenance and Configuration Requirements for Mobility Air Forces (MAF) Aircrew and Aircraft-Installed Aircrew Life Support Equipment (ALSE)*, and applicable AETC supplements. Additional components may be added to supplement the mandatory components and enhance aircrew safety and survival.

A3.3.21. **(Added-AETC)** Attachment 5 (Added) lists the minimum components required for the parachute spacer kit (PSK) and survival vest. Duplication of components is not necessary when items are otherwise carried elsewhere (for example, if the strobe light is attached to the parachute, there is no need to also install one in the PSK or vest).

A3.3.22. **(Added-AETC)** The OG/CC will determine when survival kits and vests are required based on local mission needs. The OG/CC will consider remote flying areas and rescue recovery time.

A3.3.23. **(Added-AETC)** Gunner's belts and/or restraint harnesses will be inspected according to TO 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 (such as, C-17, C-130, KC-135, etc.).

A3.3.24. **(Added-AETC)** Members will only wear or use authorized and approved survival vests, properly configured and maintained. Inspections will be accomplished according to appropriate TO and AETC directives. Standardize vest pockets and component location. Use care when removing or relocating pockets. Final location of pockets should address all aspects of safety and comfort for each aircrew member.

A3.3.25. **(Added-AETC)** Only qualified AFE personnel will inspect, test, and maintain oxygen masks, connectors, and emergency quick disconnects.

A3.3.25.1. **(Added-AETC)** At least once every 30 days AFE personnel will inspect and test oxygen mask connectors and emergency quick disconnects and document all inspections appropriately.

A3.3.25.2. **(Added-AETC)** Units will inspect, test, and maintain oxygen connectors at least once every 30 days used for equipment preflight attached to MQ-1, *Test Set (Sun Electric), Test Set, Flight Ensemble Pressure Breathing Type* TTU-529/E or other authorized test-sets and document appropriately.

A3.3.26. **(Added-AETC)** AFE will inspect and repair quick-start masks as required.

A3.3.27. **(Added-AETC)** For T-6, T-38, and AT-38 aircraft, the CRU-60/P terminal oxygen block connector may be attached to the end of the oxygen hose or on the parachute and inspected with the equipment it is attached to. Standardize the location of the connector throughout the wing.

A3.3.27. **(12FTW)** For T-38/T-6 aircraft, the CRU-60/P terminal oxygen block connector will be attached to the parachute/torso harness.

A3.3.27.1. **(Added-AETC)** If attached to the parachute or torso harness, use a method to protect the connector from dust and impurities. Also, continuation training will emphasize proper connection to the mask and aircraft. Aircrews must physically check connector attachment to the aircraft oxygen system to ensure proper connection and complete the pressure regulator indicator connections emergency check prior to flight.

A3.3.28. **(Added-AETC)** AFE personnel will inspect parachutes and/or torso harnesses and maintain according to appropriate 14D series TOs and AETC directives. Preflight inspection of personnel parachute or torso harness is the responsibility of the user.

A3.3.29. **(Added-AETC)** Install the MXU-22/P, inflatable lumbar support pad, on parachutes and torso harnesses as authorized in writing by the local aerospace medicine office. Consult unit flight surgeons for optimal use and placement of the lumbar support pad. When installed inspect according to appropriate TO and concurrent with item installed.

A3.3.30. **(Added-AETC)** Units are authorized, according to TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policy and Procedures*, 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.

A3.3.31. **(Added-AETC)** Group commanders have the authority to determine the day-to-day use of the personnel lowing device (PLD). During the PLD usage decisionmaking process, commanders should consider the following: terrain (such as, mountains, heavily wooded areas, etc.), flying time over such terrain, and the various uses of the PLD not related to lowering oneself from a tree.

A3.3.32. **(Added-AETC)** Aircrew are prohibited from wearing contact lenses while wearing aircrew chemical defense equipment (such as, AERP/ACDE) according to AFJI 44-117, *Ophthalmic Services*.

A3.3.33. **(Added-12FTW)** Flight Equipment:

A3.3.33.1. **(Added-12FTW)** G-suit excess lacings will be cut no shorter than 8 inches and no longer than 36 inches from the knot for permanent party aircrew.

A3.3.33.2. **(Added-12FTW)** Remove Velcro from G-suit hose to prevent chaffing for permanent party aircrew IAW 14P3-6-121.

A3.3.34. **(Added-12FTW)** Component Inspection/Inspection Records**:**

A3.3.34.1. **(Added-12FTW)** A white dot will be placed on the radio & beacon tip/cap to ensure the antenna weight test inspection was completed.

A3.3.34.2. **(Added-12FTW)** "White Out" will be placed on the radio volume control knob (radio volume set to max).

A3.3.34.3. **(Added-12FTW)** A g-suit refit date will be annotated on the AFTO Form 335, *Anti-G Suit Inspection Record*.

A3.3.34.4. **(Added-12FTW)** A white label will be used on the back of the DD Form1574, *Serviceable Tag-Material* to annotate required component information.

A3.4. (Added-AETC) Care, Use, and Storage of AFE. The following specific instructions apply to the unique use, care and storage of AFE:

A3.4.1. **(Added-AETC)** Only use authorized knee-boards and clipboards. The use of all-metal checklist rings presents both safety and foreign object damage 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 nonejection seat aircraft may use clipboards authorized for use in AS 016, *Special Purpose Clothing and Personal Equipment.*

A3.4.2. **(Added-AETC)** Fire department personnel will be trained in integration, functional use, and operation of AFE that may be encountered during aircrew and passenger extraction and apprised of any changes in AFE type or operation that affect aircrew extraction.

A3.4.3. **(Added-AETC)** Vacuum-packing AFE is authorized under the following conditions:

A3.4.3.1. **(Added-AETC)** 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.

A3.4.3.2. **(Added-AETC)** 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.

A3.4.3.3. **(Added-AETC)** 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.

A3.4.3.4. **(Added-AETC)** Vacuum-packaging equipment may be requisitioned according to AS 006, *Organizational and Administrative Equipment,* and AS 538, *Security Police Activities, Organizational Small Arms Equipment, Military Working Dogs, Associated Equipment, Confrontation Management, Air Base Ground Defense, Correction, and Detention Equipment.*

A3.4.4. **(Added-AETC)** Each AFE section will develop a means to ensure all individually issued AFE is post-flight inspected after the last flight of the day or prior to the next flight.

A3.4.5. **(Added-AETC)** Supervisory undergraduate pilot training, pilot instructor training, and FTU aircrew members will perform equipment post-flight inspections on helmets and masks, provided they are properly trained and instructions are posted in the AFE shop. ***EXCEPTION:*** Not applicable to AFRC-gained units.

A3.4.6. **(Added-AETC)** Local pre- and/or post-flight inspection checklists are authorized to accomplish this inspection. If local pre- and/or post-flight inspection checklists are used, they must be reviewed for accuracy with the parent TO annually and upon receipt of TO changes. Reviews must be documented.

A3.5. (Added-AETC) Reuse of Aircrew Flight Equipment Involved In a Class A Aircraft Mishap. AFE 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.

Attachment 4 (Added-AETC)

AIRCREW FLIGHT CLOTHING AND EQUIPMENT REQUIREMENTS

A4.1. (Added) Requirements. Table A4.1 (Added) provides aircrew flight clothing and equipment requirements. 306 FTG and CAP USAF units will supplement this table to address unique requirements for their aircraft.

Table A4.1. (Added) Aircrew Flight Clothing and Equipment Requirements.

LINE	A	B	C	D	E	F	G	H	I
	Item	**T-1 T-43**	**T-6**	**T-38**	**F-15/F-16**	**F-22**	**KC-135**	**Cargo/Airlift**	**CV-22 & Helicopters**
1	Nomex®flight suit	X	X	X	X	X	X	X	X
2	USAF approved flight boots	X	X	X	X	X	X	X	X
3	Flight glove, GS/FRP-2 or USAF approved flight gloves	X (note 1)	X (note 2)	X (note 2)	X (note 2)	X (note 2)	X (note 1)	X (note 1)	X (note 2)
4	Nomex®/ Aramid, cotton, or wool underwear and socks	X	X	X	X	X	X	X	X
5	Flight jacket	AR	AR	AR	AR	AR	AR	AR	AR
6	Helmet, HGU-55/P	NA	X	X	X	X	AR	AR	AR
7	Helmet, HGU-56/P	NA	NA	NA	NA	NA	NA	NA	X
8	Oxygen mask (MBU-5/P, 12/P, 20/P or custom fit) w/CRU-60/94 connector	NA	X	X	X	X	AR	AR	AR
9	G-Suit (CSU-13/P)	NA	X	X	X	NA	NA	NA	NA
10	Combat edge equipment	NA	NA	NA	X	X	NA	NA	NA
11	Parachute, BA-18, 22, or 29	NA	NA	X (note 3)	NA	NA	AR	AR	NA
12	Harness, PCU-15/P, or 16/P	NA	X	X (note 4)	X	X	NA	NA	NA
13	Vest and/or parachute spacer kit	NA	NA	AR (notes 3, 5)	NA	NA	NA	NA	NA

LINE	A	B	C	D	E	F	G	H	I
	Item	**T-1 T-43**	**T-6**	**T-38**	**F-15/F-16**	**F-22**	**KC-135**	**Cargo/Airlift**	**CV-22 & Helicopters**
14	G-suit (CSU-23/P ATAGS)	NA	NA	NA	NA	X	NA	NA	NA
15	LPU-9P, 38P, 10/P (note 6)	NA	AR	AR	AR	AR	NA	NA	NA

LEGEND:
X – Mandatory
AR - As required
NA – Not applicable

NOTES:

1. Flight glove wear will be in accordance with AFI 11-2MDS-Specific V3 guidance. If there is no guidance for flight glove use in the respective AFI 11-2MDS-Specific V3, then flight gloves will be worn during engine start, takeoffs, landing, and when performing emergency procedures, except when wear of flight gloves would hinder completion of required actions.

2. Flight gloves will be worn from engine startup until engine shutdown.

3. Required when flying over remote areas.

4. Required once Ejection Seat Upgrade Program (ESUP) seat is installed.

5. No longer required if aircraft is equipped with ESUP seat.

6. Only LPU-10P authorized for use in non-ESUP T-38 aircraft.

Attachment 5 (Added-AETC)

MINIMUM PSK/SURVIVAL VEST COMPONENTS

A5.1. (Added) Minimum Components. Table A5.1 (Added) provides minimum PSK and/or survival vest components.

Table A5.1. (Added) Minimum PSK/Survival Vest Components.

LINE	A Item	B Quantity
1	Survival radio, PRC-90 series or CSEL	1 each
2	Signal flare, MK-13 or MK-124	1 each
3	Signal kit, A/P-25S-5A	1 each
4	Compass	1 each
5	First aid kit, individual or tropical	1 each
6	Water, flex pack	3 each
7	Whistle	1 each
8	Strobe light	1 each
9	Mk-3 mirror (type I or II)	1 each
10	General purpose knife	1 each