

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

**AIR FORCE MANUAL 11-301 VOLUME
2**



13 FEBRUARY 2020

*Incorporating Change 1, 1 DECEMBER
2023*

Flying Operations

**MANAGEMENT AND
CONFIGURATION REQUIREMENTS
FOR AIRCREW FLIGHT EQUIPMENT
(AFE)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.e-Publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AF/A3TH

Certified by: AF/A3T
(Major General James A. Jacobson)

Supersedes: AFI11-301V2, 20 December 2013

Pages: 58

This manual implements Air Force Policy Directive (AFPD) 11-3, *Aircrew Flight Equipment (AFE)*, and Air Force Manual (AFMAN) 11-301, V1, *Aircrew Flight Equipment Program (AFE)*. This volume incorporates the intent of Department of the Air Force Policy Directive (DAFPD) 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-weapon Systems, and Activities*. It establishes Air Force (AF) standards and defines management and configuration requirements for AFE items. This AFMAN applies to all civilian employees and uniformed members of the Regular Air Force, Air Force Reserve, and Air National Guard. This publication does not apply to the United States Space Force. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, Recommendation for Change of Publication; route Department of the Air Force (DAF) Form 847s from the field through the appropriate chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See Department of the Air Force Instruction (DAFI) 90-161, *Publishing Processes and Procedures* for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor’s commander for non-tiered compliance items.

Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this manual does not imply endorsement by the AF.

SUMMARY OF CHANGES

This interim change revises AFMAN 11-301 Volume 2 to update management and configuration changes of aircrew flight equipment. References throughout to “AF/A3TF” or “HQ USAF/A3TF” are hereby changed to “AF/A3TH”. The email address for AF/A3TH is AF.A3.TH@us.af.mil. A margin bar (|) indicates newly revised material.

Chapter 1—ROLES AND RESPONSIBILITIES	4
1.1. Chief, Total Force Aircrew Management, Integration Division (AF/A3TF).....	4
1.2. MAJCOM/A3 and ANG/A3 Note:	4
1.3. Operations Group Commanders (OG/CC) or equivalent.....	6
1.4. Operations Group AFE Superintendent (AFES)/AFE COR, and AFE Officer (AFEO).	6
1.5. NCOIC, AFE Section/Satellite Shop, and/or Squadron Level AFE Function.....	6
1.6. Maintenance Elements.....	8
1.7. Base Medical Treatment Facility (MTF).	9
1.8. AFLCMC/WNU.	9
Chapter 2—MANAGEMENT AND CONFIGURATION OF AIRCREW FLIGHT EQUIPMENT	10
2.1. General Management and Configuration Guidance.....	10
2.2. Anti-Exposure Suits.....	10
2.3. Anti-G Garments.....	12
2.4. Cold Weather Aviation System (CWAS). Lead Command—PACAF.....	12
2.5. Aircrew Oxygen Masks.	12
2.6. Aircrew Oxygen Connectors. Lead Command—ACC.....	16
2.7. Emergency Aircrew Oxygen Systems.	16
2.8. Passenger Emergency Oxygen Masks and Systems.	17
2.9. Aircrew Protective Helmets and Helmet Liners. Lead Command—ACC.	18
2.10. Aircrew Optical Devices and Accessories.	19
2.11. Aircrew Chemical, Biological, Radiological, Nuclear (ACBRN) Equipment.....	23

	2.12.	Emergency Electronic Communication and Signaling Equipment.....	26
Table	2.1.	Command Centers.....	29
	2.13.	Life Preserver Units (LPU).....	30
	2.14.	Life Rafts and Escape Slides.....	31
	2.15.	Personnel Parachute Systems, Torso Harnesses, Restraint Devices, and Deceleration Devices.	32
	2.16.	Personnel Parachute, Torso Harness, and Restraint Harness Accessories.....	32
	2.17.	Survival Kits, Survival Vests, Survival Backpacks, and Aircrew Body Armor.	33
Figure	2.1.	PCK Stencil Label.	36
	2.18.	Aeromedical Evacuation Crewmember Support. Lead Command—AMC.....	38
	2.19.	Passenger Demonstration Kits. Lead Command—AMC.	40
	2.20.	KC-10 Aircraft Configuration.....	40
	2.21.	KC-10 Auxiliary Survival Kit. Lead Command—AMC.	41
	2.22.	Aircrew Flight Clothing.....	41
	2.23.	Aircrew Self Defense Weapon (GAU-5A). Applicable Commands—ACC, AFGSC, PACAF, USAFE, ANG, AFRC Ejection Seat Aircraft Only.	41
Chapter 3—CONFIGURATION OF AIRCRAFT INSTALLED AND PRE-POSITIONED AIRCREW FLIGHT EQUIPMENT			43
	3.1.	General Aircraft Installed/Pre-positioned AFE Guidance.	43
	3.2.	Aircraft Configurations.....	47
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION			51

Chapter 1

ROLES AND RESPONSIBILITIES

1.1. Chief, Total Force Aircrew Management, Integration Division (AF/A3TF).

1.1.1. AF/A3TH identifies lead commands (LCs) for the purpose of equipment management and improvement procedures. See **Chapter 2** of this AFMAN and LC subject matter expert (SME) Major Commands (MAJCOM) located on the HAF AFE SharePoint@: <https://usaf.dps.mil/SITES/USAF-AFE/>

1.1.2. LCs are designated for aircraft, aircrew, and passenger AFE systems related to various mission design series (MDS), to assist with Air Force Materiel Command (AFMC) Acquisition and Sustainment organizations on subject matter expertise input. This process ensures the operational safety, suitability, and effectiveness (OSS&E) baselines are preserved in accordance with AFI 63-101/20-101, *Integrated Life Cycle Management*. LC will ensure coordination is made to protect the OSS&E baseline of commercial products used on aircraft in accordance with AFMCI 63-1201 *Implementing Operational Safety Suitability and Effectiveness (OSS&E) and Life Cycle Systems Engineering (LCSE)*. **(T-1)**.

1.1.3. LCs are responsible for identifying or pursuing AFE requirements for responsible weapon systems/aircrew (e.g. Air Combat Command (ACC) for the Combat Air Force (CAF)/Air Mobility Command (AMC) for the Mobile Air Forces (MAF) etc.) in accordance with AFD 10-9 to include defining the funding process and establishing the AF Program Objective Memorandum (POM) input to fund total initial procurement and fielding. LCs are not responsible to fund continued use, sustainment or additional purchases of AFE assets for using commands. Each command will be responsible for its own funding of current or MAJCOM specific AFE requirements. LCs will fund initial AFE unit type code (UTC) logistics detail (LOGDET) requirements when no other UTC LOGDET exists within the unit and when the gaining command requires Air Reserve Components (ARC) to perform a gained command mission. MAJCOMs will not fund LOGDET requirements when a unit converts from one MDS with a LOGDET to a new MDS. **(T-1)**.

1.1.4. LCs are responsible for developing and maintaining any responsible MDS-wide AFE guidance or policy.

1.2. MAJCOM/A3 and ANG/A3 Note: References to MAJCOM/A3 in this publication also refers to equivalent MAJCOM operations functional commanders not referred to as the MAJCOM/A3.

1.2.1. Will ensure equipment in **Chapter 2** and **Chapter 3** of this manual is assigned a LC. The LC is responsible as an overall subject matter expert (SME) point of contact for AFMC Air Force Life Cycle Management Center (AFLCMC) Acquisition and Sustainment Teams with respect to management and improvement efforts. The designated LC will act as the LC determination on all Air Force Technical Order (AFTO) Form 22, *Technical Manual Change Recommendation and Reply*, reports submitted to Command Control Points (CCPs). The LC CCP will be the final evaluator on these reports prior to routing to AFMC functions for final action and disposition. **(T-1)**

1.2.2. MAJCOMs authorizing use of commercial off-the-shelf (COTS) items unrelated to the 412A System (TO 00-25-06-2-1-WA-1, *Intermediate Maintenance Instr Work Unit Code*

Manual 412A Survival/Life Support System Equipment) equipment work unit code manual will ensure Technical Order (TO) guidance or commercial manuals are provided to units to ensure COTS items are properly maintained in accordance with AFI 63-1201. **(T-1)**. Request that commercial manuals be assigned TO numbers through AFMC functions.

1.2.2.1. COTS/Non-Developmental Items (NDI) items affecting the OSS&E baseline, that modify or change the integration of items identified as part of the 412A System (TO 00-25-06-2-1-WA-1) must be approved by the sustaining Engineering Support Activity. **(T-2)**.

1.2.2.2. AFE is critical life sustaining/saving equipment and must only be purchased from approved sources. Wing contracting offices will only purchase COTS/NDI items from Engineering Support Activity approved vendors. **(T-2)**. This may often result in AFE COTS/NDI items being purchased as Sole Source Items. Questions concerning the authorized purchase of AFE COTS/NDI items, particularly if the arrangement will be from a sole source, should be directed to Air Force Life Cycle Management Center/AFLCMC/WNU.

1.2.3. Publish TO Options list for MAJCOM and MAJCOM-gained units. Post final version to MAJCOM AFE SharePoint® or Portal website. Non-Lead Command MAJCOMs consider LC TO Options lists (located on MAJCOM AFE SharePoint®) when developing their MAJCOM option selections.

1.2.3.1. Equipment inspected and repacked by an Air Logistic Complex will maintain owning unit configuration/options. **(T-2)**.

1.2.4. Attend annual Isolated Personnel Working Group (IPWG) in accordance with (IAW) the Survival, Evasion, Resistance, and Escape (SERE) Isolated Personnel Working Group Charter. **(T-2)**

1.2.4.1. Only TO authorized, AFLCMC/WNU Safe-to-Fly, and/or MAJCOM approved survival components will be provided to USAF aircrew members or installed in survival kits, vests, and/or backpacks (see AFMAN 11-301V1 for additional details). **(T-1)**. The IPWG will adhere to this standard and follow approved acquisition processes for new/modified components.

1.2.4.2. The selection of authorized survival components is a joint responsibility of the Isolated Personnel Working Group (IPWG). Within the IPWG, SERE provides Subject Matter Expert (SME) insight from a capability/tactics, techniques, and procedures (TTPs) aspect, proposing components which are determined to meet requirements to be packed in survival kits, vests, and backpacks. AFE evaluates the proposal from a technical perspective, considering unique aspects (e.g., installation integration, space, weight, size, etc.). Based on the combined efforts of the IPWG, determination will be made if the survival component can and will be adopted or whether the matter be forwarded to AFLCMC/WNU for coordination at Aircrew Performance Working Group and in advance of Aircrew Performance Executive Council. **(T-1)**

1.2.4.3. At a minimum, AFE and SERE will follow the intent of Federal Aviation Administration guidance for AFE maintained survival components installed in multi-place life rafts and passenger safety equipment. **(T-2)**.

1.2.4.4. Forward requests for use of COTS/NDI survival components that require MAJCOM assumption of risk via AF Form 847 through the Operations Group commander (or equivalent) to MAJCOM A3T or equivalent. Describe in detail why this survival component is required.

1.3. Operations Group Commanders (OG/CC) or equivalent.

1.3.1. Will ensure all crewmembers and passengers wear or have access to the required AFE for the route of flight and duration of the mission. **(T-2)**. Commercially procured items are not authorized for use without prior approval or safe-to-fly recommendation by the respective AFE Single Item Manager and MAJCOM A3 office of primary responsibility in accordance with AFI 11-301, V1. **(T-2)**.

1.4. Operations Group AFE Superintendent (AFES)/AFE COR, and AFE Officer (AFEEO).

1.4.1. Prior to use, ensure newly developed COTS/NDI AFE items pursued by units for AF aircraft as well as for aircrew use is evaluated and approved using AFLCMC/WNU, HSD, requirements. **(T-2)**.

1.5. NCOIC, AFE Section/Satellite Shop, and/or Squadron Level AFE Function.

1.5.1. Store, handle, service, and account for items part of 412A System (TO 00-25-06-2-1-WA-1) equipment work unit code manual.

1.5.2. Inspect and repack pre-meditated parachutes, parachutist oxygen systems, integrated survival vest and body armor, survival kits/backpacks, life rafts and inner and outer life raft accessory containers, life preservers, and applicable components. Inspect aircraft installed AFE oxygen equipment, emergency recovery parachutes, protective clothing kits, personnel restraint harnesses and all other aircrew life sustaining equipment as identified by this and other AF guidance.

1.5.3. Ensure passenger demonstration equipment is available and pre-positioned aboard all passenger-carrying aircraft.

1.5.4. Maintain AFE used in flight simulators, egress procedure trainers, and fuselage trainers. MAJCOMs may specify frequency and procurement procedures. If not specified, inspect AFE used in or on these devices at the same intervals as operational equipment/aircraft. AFE is not required to do daily post-flight/mission termination inspections of AFE used in support of these devices. **(T-2)**

1.5.5. AFE personnel are not responsible for storing, handling, servicing, or accountability of the following items: Dosimeters, medical sensors, thermos jugs, aircraft fire extinguishers, aircraft portable O2 cylinders, pre-breather O2 assemblies, high altitude oxygen cylinder assemblies, aircraft oxygen regulators, ground crew headsets, ground crew ballistic helmets, ground crew ballistic vests, ground crew chemical defense equipment, pyrotechnic flare pistols, E-and-E kits, passenger service equipment, aircraft first aid kits, hand sanitizers, aircraft night vision goggle lighting components, contact lens and/or contact lens supplies, ground crew night vision devices, rear vision devices, Emergency Vision Assurance Systems, medications (including "go pills"), aircrew tool kits, luggage or baggage loading equipment, fire containment bags/containers, non-AFE support equipment, gun transportation cases, binoculars, ground command pointers, reduced oxygen breathing device/reduced oxygen breathing environment (ROBD/ROBE), aircrew headsets, firefighter's gloves, escape slide

covers, Enhanced Small Arms Protective Inserts (ESAPI), ice chests, seat cushions, Personnel Recovery Kits (PRKs), Chemical /Biological Aircraft Survivability Barrier, and Individual Issue Equipment (IIE), or items not related to the 412A System (TO 00-25-06-2-1-WA-1) work unit code manual. Units must report all related issues to their MAJCOM AFE staff for action. **(T-3) Exception:** Guardian Angel (GA), Special Tactics and Test Parachute Program AFE personnel may be responsible for pre-breather O2 assemblies, high altitude oxygen cylinder assemblies, ground crew ballistic helmets, binoculars and ground-crew night vision devices. MAF units will follow the Air Mobility Command Portable High-Altitude High-Pressure Oxygen System Concept of Employment for the Knight Aerospace Portable High-Altitude High-Pressure Oxygen System (HPOS) for specific AFE responsibilities.

1.5.5.1. AFE personnel will not maintain ground crew Night Vision Devices (NVD) and ground crew optical devices, (i.e. Security Forces, Airfield Operations, etc.). **(T-1). Exception:** Special Tactics (ST), Guardian Angel (GA), AMC C-17A Special Operations Low Level II (SOLL II) Forward Area Refueling Point (FARP) teams, and Aerial Bulk Fuel Delivery Systems (ABFDS) teams, already supported by AFE personnel for that specific operator mission.

1.5.5.2. Before an item is introduced for AFE responsibility, MAJCOMs must receive approval from AFMC to establish required acquisition and sustainment support.

1.5.5.3. MAJCOMs/Systems Program Offices must first notify AF/A3TF before any items are levied upon AFE in order to establish manpower and training costs. Forward all available data via email to the AFE CFM.

1.5.5.4. AFE stores a variety of bladder relief devices for aircrew to access prior to step and brief the availability of devices via LL01, AFE Familiarization and LL06 Aircrew Flight Equipment Training.

1.5.6. During heightened operational readiness preparations, combat generations, wartime contingencies, Exercises at any level, Readiness Inspections (RI), Nuclear Readiness Inspections, Readiness Assistance Visits (RAV), generation exercises, etc. 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 contamination mitigation, etc.). Ensure AFE personnel must not be assigned duties that will detract from wartime proficiencies and requirements. **(T-2).**

1.5.7. Support Non-Aircrew Position Identifier personnel performing aircrew duties including FARP teams, ABFDS, Maintenance Activity Special Operations Personnel (MASOP), SOLL II AFSC 3D1X3 RF Transmission System Operator, Combat Camera, and Aeromedical Evacuation personnel. Unless specified, owning unit/command has administrative control for these types of personnel and will purchase or provide funding for flight equipment (i.e. NVDs, helmet and oxygen mask etc., if required). **(T-2).**

1.5.7.1. FARP and ABFDS equipment requirements are addressed in AFI 23-201, *Fuels Management* to include **Attachment 4**. HQ ACC/A4 funds FARP equipment in accordance with AFI 11-235 *Specialized Fueling Operations*. HQ Air Force Special Operations Command (AFSOC)/A4 funds individual flight equipment items for FARP

teams (excluding NVD's) and the user's organization will fund individual flight equipment items for ABFDS personnel per [paragraph 1.5.7. \(T-2\)](#).

1.5.7.2. AFE will maintain and issue SOLL II FARP NVDs as the FARP teams are an integral part of the primary aircrew during special operations missions. SOLL II FARP NVDs are the only non-Operations Group NVDs AFE personnel will maintain. **(T-2) Note:** AFE is authorized to maintain additional backpacks and aircrew body armor to support SOLL II Alert Aircraft as required by local configuration requirements.

1.5.7.3. Flying Crew Chiefs will not be issued or provided flight equipment. **Exception:** Maintenance Activity Special Operations Personnel (MASOP) & B-52.

1.5.7.4. Combat Camera personnel in flying positions are authorized flight equipment.

1.5.7.5. AFSC X3D1X3 RF Transmission System Operators directly supporting SOLL II operations are authorized flight equipment.

1.5.7.6. The following flight equipment will be maintained for each Aeromedical Evacuation Crewmember (AECM): Quick-don Mask, Aircrew Body Armor, and D-Bag. **(T-2)**

1.5.8. F-35 units will adhere to the guidance in this publication to the maximum extent possible while still operating under program guidance and Joint Technical Data. **(T-2)**.

1.5.8.1. Despite the ACC AFE Staff's ongoing efforts to ensure the F-35 program is in compliance with this manual, we expect the inherent programmatic differences within the F-35 program, to drive changes to our current AF policies. Therefore, selective guidance included in this manual may not be capable of implementation during the initial F-35 fielding. When this is the case, F-35 units will notify (via memorandum) the ACC 1P0 Functional Manager with the following information, and ensure owning MAJCOM/Field Operating Agency AFE Staff are courtesy copied on the memorandum. **(T-2)**.

1.5.8.1.1. Reference for guidance not applicable to F-35 (page and paragraph).

1.5.8.1.2. Reason the guidance is not applicable for F-35.

1.5.8.1.3. Process used in lieu of the guidance as identified in [paragraph 1.5.8.1.1](#), above.

1.5.8.1.4. Verbiage to be included in the next re-write of the affected manual to account for the lack of appropriate guidance.

1.5.8.2. The ACC 1P0 Functional Manager will approve/disapprove all requests on a case-by-case basis. Approved requests will apply to all F-35 units and will remain in effect until included in this publication. **(T-2)**.

1.6. Maintenance Elements.

1.6.1. Avionics Flight. Will ensure helmet-mounted cueing system (HMCS) issues, and similar approved systems, are routed through AFES for resolution. **(T-3)**. Coordinates inspection of HMCS maintenance helmets through AFES.

1.6.2. Aircraft Electrical Environmental (E&E) System Specialist (2A6X6) or qualified AF contractors.

1.6.2.1. Servicing, inspecting, recharging, testing, and overhaul of cylinder/valve assemblies will be accomplished by Electro Environmental System Specialists (2A6X6) or qualified/fully-trained personnel at field level, to include AF contractors. **(T-2)**. The maintenance of the cylinder/valve assemblies should be closely inspected.

1.6.2.2. If E&E does not possess the capability to maintain cylinders, they shall coordinate with appropriate agency (i.e. qualified vendor) to accomplish required task. AFE sections requiring maintenance activity support for repair of survival related components such as life raft cylinders or emergency oxygen cylinders will accomplish the applicable forms and forward items to the appropriate maintenance activity for repair or overhaul. AFE will coordinate with maintenance activities to ensure inspection/maintenance capability. If maintenance activity uses an approved contractor for cylinder maintenance, flight equipment cylinders must be added to the contract. **(T-2)**.

1.7. Base Medical Treatment Facility (MTF). Create or mold aircrew earpieces for ACCES/PACE aircrew earpieces for these devices.

1.8. AFLCMC/WNU. AFLCMC/WNU maintains its current safe to fly certifications at <https://usaf.dps.mil/sites/21562/AFE/Safe%20to%20Fly/>. AFE functions will utilize this site as the official reference to manage the use of applicable items. **(T-1)**

Chapter 2

MANAGEMENT AND CONFIGURATION OF AIRCREW FLIGHT EQUIPMENT

2.1. General Management and Configuration Guidance.

2.1.1. AFE functions will maintain equipment in accordance with applicable TOs and this manual, without deviation, unless approved through the waiver process. **(T-1)**.

2.1.2. This chapter is intended to be used for management and configuration guidance not specifically covered in TOs or commercial manuals. Guidance sent to field units in message format should be incorporated into the applicable publication at each update or revision. This chapter defines LCs for each equipment item.

2.1.3. AFE personnel will not use operational equipment for aircrew training purposes; exceptions are “above-the-shoulder” Aircrew Chemical Biological Radiological Nuclear (ACBRN) equipment (i.e., Aircrew Eye Respiratory Protection (AERP)/Joint Service Aircrew Mask (JSAM) series equipment), ACCA/Aircrew Contamination Control Station (ACCS) processing system, Aircrew Laser Eye Protection (ALEP), Phantom O2 equipment, and pre-meditated parachute systems. Maintain training assets in sufficient quantities to allow each student hands-on training. **(T-2)**

2.2. Anti-Exposure Suits.

2.2.1. Multi-place, Non-ejection Seat Anti-exposure Suit Guidance. Lead Command - AMC.

2.2.1.1. Anti-exposure suits are required to be pre-positioned on multi-place, non-ejection seat aircraft with planned flights above 78 degrees north or below 60 degrees south in accordance with as recommended by the Federal Aviation Regulation (FAR) 135.98, Operations in the North Polar Area and Federal Aviation Administration (FAA) Advisory Circulars (AC) 120-42B, Extended Operations and FAA AC135-42, Extended Operations and Operations in the North Polar Area. Specific quantities are governed by applicable 11-2MDSV3 Addendums. If no applicable MDS Addenda exists, install two suits when meeting the above criteria or follow the applicable AFE aircraft configuration tables listed on the HAF AFE SharePoint®. AFE will ensure a process is in place with the current operations flight or plans and scheduling flight to notify AFE when flights are planned to meet the above criteria for aircraft configuration purposes. **(T-1)**

2.2.1.2. **Quick-donning, non-fitted anti-exposure suits. Lead Command – AMC.** The Viking Quick Donning Anti-Exposure Suit (QDAES) satisfies anti-exposure requirements in this manual.

2.2.2. Fighter Ejection Seat and Vertical Lift Aircraft Anti-Exposure Suit Guidance. Lead Command—ACC.

2.2.2.1. Operations Group Commanders will ensure their aircrew are fitted with a constant wear personnel anti-exposure suit ensemble (includes required liners and undergarments) in accordance with Technical Data prior to their first flight requiring an anti-exposure suit. **(T-1)**. Units will provide diver’s gloves for use with constant wear anti-exposure suits as directed by MAJCOM. **(T-2)**. Gloves may be issued to the aircrew before flight. Gloves individually issued before flight will be inspected “prior to issue” for every flight. **(T-1)**.

Inspect diver's gloves concurrently with the assigned anti-exposure suit or next higher assembly installed in (survival kit, vest etc.) in accordance with applicable Technical Order (TO) or manufacturer's guidance.

2.2.2.2. In the absence of detailed anti-exposure suit ensemble wear guidance in applicable 11-2MDS V3 (takes precedence), ejection seat and vertical lift aircrew will comply with the following guidance: Constant wear anti-exposure suit ensembles (including required liners and undergarments) will be worn by ejection seat and vertical lift aircrew on any preplanned overwater flight when the water temperature is 60F/15.5C or less. **(T- 2)**.

2.2.2.3. If the water temperature ranges between 60F (15.5C) and 51F (10.5C), and the air temperature (local or overwater/operating area air temperature) is 70F (21.2C) or greater at step time, the operations group commander (or equivalent) may waive the requirement to wear the anti-exposure suit ensemble after considering the following factors:

2.2.2.3.1. Climate zone and existing weather throughout range of flights.

2.2.2.3.2. Operational requirements.

2.2.2.3.3. Number and type of aircraft participating in sortie.

2.2.2.3.4. Time of flight over water.

2.2.2.3.5. Distance from land.

2.2.2.3.6. Mission altitude.

2.2.2.3.7. Risk based on type of sortie.

2.2.2.3.8. Degree of surveillance over the mission area.

2.2.2.3.9. Location, availability and capability of Search and Rescue (SAR) forces.

2.2.2.3.10. Winds, wave height, and their impact on SAR operations.

2.2.2.3.11. To aid group commander's (or equivalent) decision, refer them to applicable 11-2MDS V3, AFI 11-202 V3, *General Flight Rules*, TO 14P3-5-111 *Aviation-Crew Systems, Aircrew Personal Protective Equipment*, Chapter 8 of CNAF 3710.7, NATOPS *General Flight And Operating Instructions Manual*, and this SIPR site (<http://portal.fnmoc.navy.smil.mil/websar/cgi-bin/websar.cgi?SubmitButton=start>) for a representative reference on life expectancy following cold water immersion.

2.2.2.4. When weather conditions are outside of the parameters listed in **paragraph 2.2.2.3**, the WG/CC may waive wear of the anti-exposure suit on a case-by-case basis only after considering paragraphs **2.2.2.3.1** through **2.2.2.3.11** (no blanket or permanent waivers are authorized at this level).

2.2.2.5. Any unique permanent waiver condition for anti-exposure suit ensemble wear policy will be forwarded to the MAJCOM for approval and documented in MAJCOM/wing supplements to 11-2MDS V3. **(T-2)**.

2.2.3. Bomber Aircraft Anti-Exposure Suit guidance. Lead Command— Air Force Global Strike Command (AFGSC).

2.2.3.1. Aircrew will wear anti-exposure suits on sorties overflying oceans with water temperatures 60F/15.5C or less. Operations group commander (or equivalent) may waive this requirement for bomber aircraft, permitting aircrew to carry and don/doff during flight as required by flight route and potential hazards. When waiving this requirement, operations group commanders will consider the factors listed in [paragraph 2.2.2.3](#). (T-1).

2.3. Anti-G Garments. Lead Command—ACC.

2.3.1. Anti-G garments will be worn on all ejection seat aircraft in accordance with MDS instructions. (T-1).

2.3.1.1. If the MDS instructions do not specify minimum “G” limits for wear, anti-G Garments are required during all flights in aircraft equipped with anti-G systems when two or more “Gs” are anticipated. U.S. Navy and other services anti-G garments are not authorized in USAF aircraft. Any exception to this guidance will be listed in TO 14-1-1, *USAF Aircrew Flight Equipment Clothing and Equipment* under Anti-G garment authorizations or through a Safe to Fly process and guidance from AFLCMC/WNU. (T-1).

2.3.1.2. Aircrew 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. F-22 pilots will have two (2) full coverage anti-G suits and two (2) upper pressure garments for each pilot. (T-1).

2.3.1.3. Record inspections, fit checks, and modifications in Aircrew Flight Equipment Records Management System (AFERMS) database or ALIS.

2.3.1.4. If aircrew are issued two Anti-G ensembles, both ensembles will be initially sized, fit, and inspected. (T-1).

2.3.1.5. With the exception of the MC-1 knife or riser cutter, no additional items will be attached to the anti-G garment unless authorized by appropriate TOs. (T-1).

2.3.1.6. All F-15C, F-16 pilots and rated flight surgeons will be issued the Full Coverage Anti-G Suit (T-1).

2.4. Cold Weather Aviation System (CWAS). Lead Command—PACAF.

2.4.1. Aircrew may use the CWAS for all flight operations when cold weather clothing is required. The CWAS is intended to be integrated with current flight clothing and equipment. Refer to T.O. 14P3-1-112, *Maintenance Instructions Nomex® Flight Gear, Coveralls, Gloves, Jackets* for CWAS guidance.

2.4.2. Units performing Arctic or Antarctic missions (e.g. Operation DEEP FREEZE, and NOAA support) may develop local procedures that best suit their unit needs and mission requirements.

2.5. Aircrew Oxygen Masks.

2.5.1. Each aircrew member will be issued an individually issued oxygen mask as dictated by applicable 11-2MDS, V3. (T-1).

2.5.1.1. AFE will provide Aircrew members flying high altitude airdrop missions with an individually fitted oxygen mask. (T-1).

2.5.1.2. During inspections, will completely disassemble aircrew issued oxygen masks and aircraft installed masks per TO guidance or as directed by this manual for specific mask types. **(T-1)**. More frequent inspections may be required if deployed conditions dictate.

2.5.1.3. The next inspection due date will be placed on the oxygen mask in a wing standardized position. Aircraft with pre-positioned Quick Don and Passenger Oxygen Masks will also have the due date annotated on the AFTO Form 46, *Prepositioned Aircrew Flight Equipment*, (or computer generated equivalent). **(T-2)**.

2.5.1.4. A specific area in the AFE section will be designated for storage of aircrew oxygen masks. AFE personnel will perform postflight inspections of all masks used for flight. **(T-1)**. **Exception:** Due to AFE manning levels, Air Education Training Command (AETC) may direct aircrew to perform their own postflight inspection.

2.5.1.5. MAF AFE personnel will perform all mask postflight inspections at home station and at deployed locations with AFE deployed support. **(T-2)**

2.5.2. MBU-12/P. Lead Command—AMC.

2.5.2.1. MAF helmeted AERP units will use the MBU-12/P as the primary aircrew mask to reduce refitting or readjustment to the helmet for AERP MBU-19/P wear. **(T-2)** Units that have transitioned to JSAM-SA(M-69) may use the MBU-20/P. KC-46 crew members are authorized to use the MBU-20/P.

2.5.2.2. DELETED

2.5.3. MBU-20/P Series. Lead Command—ACC .

2.5.3.1. MBU-20/P series masks are available in MBU-20/P for pressure breathing for G (PBG) and MBU-20A/P for non-PBG. **(T-1)**.

2.5.3.2. Units that utilize both the MBU-20/P series and MBU-19/P masks must modify HGU-55/P helmet receivers in accordance with TO 14P3-4-151, *Operation and Maintenance Instructions With Illustrated Parts Breakdown HGU- 55/P Flyer's Helmet*. **(T-1)**. Modification allows bayonet angles from both masks to effectively fit in helmet bayonet receivers.

2.5.4. Quick Don Folding Mask Assembly, 358 Series. Lead Command—AMC.

2.5.4.1. The 358-1506V-7 and 358-1506V-8 are the preferred 358-1506 series configurations. Units will upgrade 358-1505V, V-1, V-2, V-4 and V-5 masks to V-7 and V-8 configurations as approved by aircraft system program offices. **(T-2)**

2.5.4.2. DELETED

2.5.4.3. Quick Don Assemblies pre-positioned on the flight deck of E-4B aircraft are contractually controlled by Boeing.

2.5.4.4. AFE units with KC-10A aircraft will maintain 358-1390V Series masks in accordance with current commercial maintenance contract and agreements. **(T-1)**.

2.5.5. **Quick Don Folding Mask Assembly, 359 Series. Lead Command—AMC.** The 359 Series Quick Don Mask is unique to the C-21A and T-1 aircraft and will be maintained in accordance with the accompanying commercial technical manual and support contract agreements. **(T-1)**.

2.5.6. Emergency Respiratory Oxygen Systems (EROS) Mask. Lead Command—AMC. EROS masks are typically installed on Operational Support Aircraft/Executive Airlift (OSA/EA) aircraft and will be maintained in accordance with their commercial manual and commercial maintenance support agreements. **(T-2).**

2.5.7. Custom Oxygen Mask. Lead Command – AFMC through AFLCMC.

2.5.7.1. When an aircrew member cannot be properly fit with a standard issue oxygen mask, units will coordinate a Technical Assistance Request (TAR), in accordance with TO 00-25-107, *Maintenance Assistance*, through their MAJCOM Functional Manager (MFM)/Staff. The MAJCOM will forward the TAR to AFLCMC/WNUS for review/approval. The approved TAR will remain on file with the member's record as authorization to use the custom oxygen mask. Additionally, a copy of the TAR will be provided to the member for their personal records. **(T-1).**

2.5.7.2. Upon receipt of the approved TAR, units will contact Gentex® Corporation, sales@gentexcorp.com, 909-481-7667, for a quote for two custom oxygen masks; one for daily operations and one spare. The requesting unit will fund all associated travel costs, for either Gentex® to travel to the requesting unit, or send the aircrew member directly to Gentex®. **(T-1).**

2.5.7.3. The custom mask is accepted as a cost per flying hour program expense. Units will coordinate with their resource advisor (RA) and the base contracting office to complete an AF Form 9, *Request for Purchase*, or a one-time purchase with the government purchase card **(T-3)**

2.5.7.4. Custom oxygen masks will be inspected in accordance with applicable TOs. **(T-1).**

2.5.8. Parachutists' Masks. Lead Command—ACC.

2.5.8.1. Will be maintained in accordance with all applicable TOs and/or commercial manuals. **(T-1).**

2.5.8.2. May be placed in serviceable storage status when not used on a frequent basis. All Parachutists' mask stored in serviceable storage status will be inspected annually. **(T-1).**

2.5.8.3. Inspection cycle for Parachutist Oxygen Masks is every 180 days. Units will place inspection due date on the inside of the hard shell. Units are required to have a minimum of 25% of required masks in service and ready for issue (ensure a proper mix of sizes are in service). Masks not in service will be handled as serviceable storage in accordance with this manual, [paragraph 3.1.22.](#) All masks will be stored in a plastic sealed container, and/or a sealable plastic bag. **(T-2).**

2.5.9. Parachutist Oxygen Bottles. Lead Command – ACC.

2.5.9.1. Parachutist oxygen bottles will be filled within allowable operating pressure limits to meet mission requirements (minimum of 200 psi for long term storage to prevent condensation build). Bottles will be checked for valid pressure levels (1800, 2100, or 3000 psi depending on system type) prior to each use. Units will ensure that the required amount of parachutist oxygen bottles are in serviceable condition at all times for assigned UTC's. **(T-2).**

2.5.9.2. DELETED

2.5.10. Commercial Aircrew Oxygen Masks for Operational Support Aircraft/Executive Airlift and Large Frame Aircraft (LFA). Lead Command—AMC.

2.5.10.1. OSA/EA and certain LFA have a variety of commercial variant aircrew oxygen masks that would be considered atypical compared to the rest of the USAF aircraft inventory. These masks may be managed and/or maintained under contract as contracted work. The AFE/AFES will be aware of and ensure compliance with any contract related to the unit's AFE mission. The AFE/AFES will attempt to resolve local contract issues at the unit-level; notify the MFM/Staff and request assistance if the matter cannot be resolved locally. **(T-1)**.

2.5.10.2. Unless specifically covered by contract and/or identified as contracted work, AFE will use the following guidance to inspect and maintain these masks: **(T-2)**.

2.5.10.2.1. Use commercial manuals to inspect and maintain these masks when standard USAF TO's orders do not exist. **(T-2)**.

2.5.10.2.2. AFE responsible for OSA/EA or LFA with commercial variant oxygen masks will establish 30-day inspection requirements (using general procedures consistent with overall maintenance procedures in commercial manuals) for all aircraft installed aircrew oxygen masks. **(T-2)**.

2.5.10.2.3. The 30-day inspection requirement includes oxygen masks used by aircrew to include mask types such as the Scott (Avox) 359 Series, the EROS Mask Series, KC-10A Avox 358-1390V Series and the firefighter smoke mask (e.g., Scott/Avox P/N 10100 or 10800 series). **Exception:** EROS on the KC-46 do not have 30-day inspection requirements.

2.5.10.2.4. AFE's scope of the 30-day inspection may be limited to the general condition of the mask, cleaning, and oxygen to mask operational check. In some cases, AFE may not be able to do a communications check as part of the inspection.

2.5.10.2.5. AFE will track the 30-day inspection of oxygen masks using AFERMS. Additionally, if AFE is required to include AFTO Form 46 with the aircraft forms or on the aircraft, the next 30-day inspection due date will be annotated on the AFTO Form 46. **(T-2)**.

2.5.10.2.6. Tracking 30-day inspection due dates by a Maintenance Function(s) is at the option of the unit and if deemed necessary should be done via mutual written agreement between the Maintenance Function(s) and the AFE function. In most cases, inclusion of the AFTO Form 46 on the aircraft or with the aircraft forms suffices.

2.5.10.2.7. Given the wide range of locations OSA/EA aircraft operate, AFE support is often not available or the AFE personnel at those locations may not be qualified to work on OSA/EA aircraft. AFE and Maintenance will refer to TO 00-20-1 *Aerospace Equipment Maintenance Inspection, Documentation, Policies and Procedures*, which has specific exceptions for when flight equipment becomes overdue when an aircraft is off station, on alert, etc. **Note:** Units will not use these exceptions as a deliberate planning factor prior to a mission. **(T-2)**.

2.6. Aircrew Oxygen Connectors. Lead Command—ACC.

2.6.1. Aircrew members requiring parachutes with emergency oxygen cylinders must have the three-prong bayonet on the oxygen mask hose with a CRU-8/P or CRU-60/P connector. **(T-1)**.

2.6.2. Oxygen mask connectors, P/N 232-94/A, 266-370, or 266-360 may be used on all oxygen masks where a bailout bottle or high altitude capability is not required.

2.6.3. Inspect oxygen mask connectors at TO directed frequency or concurrent with oxygen mask used if no frequency is identified in the TO. AFE will inspect and maintain oxygen mask connectors attached to Scot Communications and Oxygen Tester (SCOT), Aircrew Systems Testers, Altitude Combined Aircrew Systems Tester, Joint Combined Aircrew Systems Tester, or Pressure Breathing Oxygen Flight Ensemble Test Set (TTU-529/E). The inspections will be recorded in applicable data base. **(T-1)**.

2.6.4. Units will develop local procedures to track the location and serviceability of CRU-94, CRU-120, CRU-122, CRU-103 or CRU-60/P oxygen connectors. **(T-1)**. AFE is only required to track the location of connectors installed on or stored with man-side equipment. AFE is not responsible for updating CAMS/IMDS for connectors installed on aircraft.

2.6.5. B-2 AFE will inspect oxygen connectors in conjunction with the torso harness inspection. AFGSC T-38 AFE will inspect in conjunction with the BA chute. **(T-2)**. B-1 AFE options: preposition connectors on the aircraft; issue prior to step; individually assign and inspect with next higher assembly.

2.6.6. Due to the B-52 having integrated and non-integrated parachutes, B-52 AFE will inspect all oxygen connectors in conjunction with the oxygen mask assembly. **(T-2)**.

2.6.7. To the maximum extent possible, all ejection seat aircraft will have the oxygen connector attached to the torso harness. **(T-1)**.

2.7. Emergency Aircrew Oxygen Systems. Lead Command—AMC.

2.7.1. Protective Breathing Equipment (PBE).

2.7.1.1. In accordance with Federal Aviation Regulation Section 121.337, *Protective Breathing Equipment*, and technical standard orders (TSO) C99, *Protective Breathing Equipment*, and TSO-C116, *Crewmember Protective Breathing Equipment*, PBEs are primary aircrew protective equipment in the event of an onboard aircraft fire. **Exception:** ACC and AFSOC may continue to use the fire fighter's smoke mask as the primary aircrew protective equipment in the event of an onboard aircraft fire.

2.7.1.2. PBEs will be placed in close proximity of each firefighting station. Some aircraft configurations may require one located at the navigators station. Refer to applicable 11-2MDS Series V3, Addenda A or this manual for specific configuration locations. **(T-1)**.

2.7.1.3. Units will use PBEs, P/N 802300-14, with the fire retardant polyethylene (green) storage container, P/N 803753-01, and neoprene neck seal. PBE P/N 802300-14 is considered the primary device. Units will not substitute above items with PBE, P/N 802300-01, with the polyethylene (day-glo orange) container and urethane neck seal. **(T-1)**. Units may still use emergency escape breathing device, P/N 802300-11, until item's service-life expires.

2.7.1.4. AFE personnel should limit how often the PBEs are removed from or installed into the container to reduce wear-and-tear on the vacuum-sealed bag. PBEs will remain in their original "hard" carrying case to provide fire and puncture-proof protection. If other PBE part numbers become authorized for use, units will receive guidance from their respective MAJCOM AFE office. **(T-1)**.

2.7.2. Fire Fighters Oxygen Smoke Mask Assemblies. Lead Command—ACC.

2.7.2.1. PBEs are designed to replace the Fire Fighter's Smoke Mask Assemblies as the primary aircrew protective equipment in the event of an onboard aircraft fire.

2.7.2.2. When Fire Fighter's and Oxygen Smoke Masks installed at oxygen regulator stations are removed from aircraft permanently and replaced with PBE assets, units will also install a Scott/AVOX 358 Series mask and goggle assembly at the oxygen regulator station where the smoke mask was previously installed. If placement of mask is not practical at the oxygen regulator station, the MAJCOM AFE office will consult with their Stan/Eval section to find the best location to place the mask(s). **(T-1)**.

2.7.2.3. Units will follow guidance for specific mask quantities, type and location per applicable 11-2MDS Series V3, Addenda A or this manual when an Addenda A does not exist. **(T-1)**.

2.7.3. Survival Egress Air (SEA). Lead Command - ACC .

2.7.3.1. AFE will make the SEA (or equivalent authorized device) available to helicopter aircrew for all overwater flights when they are outside auto rotation distance from shore. This device will not be stowed in flight suit pockets; it must be correctly stowed in the issued survival vest/harness such as the Air Warrior Primary Survival Gear Carrier or EAGLE Combat Integrated Armor Carrier System (CIACS). **(T-2)**.

2.7.4. Helicopter Emergency Egress Device (HEED). Lead Command—ACC .

2.7.4.1. All rotary wing type aircraft aircrew will wear the HEED during overwater flights when they are outside the auto rotation distance from shore. **(T-1)**.

2.8. Passenger Emergency Oxygen Masks and Systems.

2.8.1. Emergency Passenger Oxygen System (EPOS). Lead Command—AMC.

2.8.1.1. EPOS is the preferred passenger oxygen, smoke, and fume protection. **Note:** Passenger Oxygen Kits are not authorized for use on USAF aircraft.

2.8.1.2. EPOS is not designed to be used and will not be used by aircrew performing primary aircrew duties, to include AECM. **(T-1)**.

2.8.1.3. MAF C-130, C/KC-135 and KC-46A units will install a carrying strap on all pre-positioned systems in accordance with TO 15X5-2-4-1 *Operation and Maintenance Instructions Mask, Passenger Type and Emergency Passenger Oxygen System*, on all EPOS units that do not utilize an external case with P/N MR-10097AF (NSN 1660-01-495-3043). **(T-2) Note:** Not applicable to EPOS installed in seat pallets.

2.8.1.4. The EPOS container contains instructions on the activation and donning of the EPOS unit. Additional visual aids are not required to be produced or attached to the EPOS unit.

2.8.1.5. C-17A Air Transportable Galley Latrine (ATGL) EPOS will be inspected, tracked and replaced by AFE. Each ATGL latrine will have two EPOS installed. **(T-1)**.

2.8.2. Passenger Oxygen Mask Assembly (Drop Down Masks). Lead Command—AMC.

2.8.2.1. AFE will perform periodic inspections on aircraft installed drop down passenger oxygen masks at intervals determined by the aircraft maintenance schedule. **(T-1)**. These inspections may be performed either on aircraft or off aircraft.

2.8.2.2. C-17A units will ensure all masks, to include masks on the sidewall seats, the stowed centerline seats, lavatories, and aeromedical stations (aircraft installed and off-aircraft spares), are inspected and maintained in accordance with applicable TOs. **(T-1)**.

2.9. Aircrew Protective Helmets and Helmet Liners. Lead Command—ACC.

2.9.1. Aircrew helmets must be used for the following conditions: **(T-1)**.

2.9.1.1. For ejection or bailout and aircrew performing air defense system missions. **(T-1)**.

2.9.1.1.1. All missions requiring parachutes or when parachutes are pre-positioned aboard the aircraft. Flying helmets are provided for use in conjunction with the parachute to avoid head injuries. **Note:** Not applicable when carrying passengers or when otherwise directed in the applicable 11-2MDS, V3 series publications for mission requirements. **(T-1)**.

2.9.1.1.2. For use with helmet mounted accessories (i.e., night-vision systems, nuclear flash protective devices, etc.), and as prescribed by applicable MDS flying publications or mission directives. **Exception:** KC-135 and KC-46A Special Operations Air Refueling (SOAR) missions do not require helmets for NVD operations. **(T-1)**.

2.9.1.1.3. Aircrew helmets will be retained for aircrew wearing aircrew chemical defense equipment that require helmet mounted devices to perform their mission in a potential chemical, biological, radiological, nuclear (CBRN) contaminated environment. **(T-1)**.

2.9.1.1.3.1. Helmets retained to exclusively support ACBRN operations (and/or an additional mask) for routine flying operations. Units using Joint Helmet Mounted Cueing System (JHMCS) will use JHMCS helmets for all non-ACBRN flights. The ACBRN helmet will be stored and inspected concurrently with D-Bag inspection cycles. **(T-2)**. **Note:** After considering current earned manpower and funding, ANG Group CC's may authorize dual use of helmet/mask configurations for routine flying missions (e.g. JHMCS/HGU-55/P).

2.9.1.2. DELETED

2.9.1.2.1. 57th Aggressor Training Group aircrew are authorized the "Aggressor Star" decal on helmets. The United States Air Force Aerial Demonstration (USAFDS) Team are authorized to utilize the Gentex HGU-55/E® helmet provided by Gibson and Barnes. USAFDS HGU-55/E helmet will be modified for PBG. **(T-1)**.

2.9.1.3. Foreign students may use their own helmets if systems are compatible. However, continued use will depend on availability of maintenance procedures and replacement parts. **(T-1)**.

2.9.1.4. Helmet shells, visor housings and visor fabric covers may be customized with operations group commander or equivalent approved designs. These surfaces may only be customized in accordance with applicable technical orders. Designs must not interfere with helmet inspections, visor operations, NVD mounting bracket, top latch assembly or flash blindness goggles. Designs will be obliterated by removing decals or replacing visor housings or covers when necessary to comply with real world sanitization requirements. **(T-2)**

2.9.1.5. Aircrew helmets and masks will be stored and maintained in a specific designated area AFE section. **(T-1)**.

2.9.1.6. Flying helmets and oxygen masks must be carried in the helmet bag to and from the AFE facility. **(T-1)**. The helmet and mask are the only items authorized in the main compartment of the helmet bag. The headset may be carried in the helmet bag outer pocket.

2.9.1.7. AFE will remove and discard any food items, bug sprays, batteries, petroleum based products or any other items that may cause contamination to oxygen equipment in aircrew helmet bags. **(T-1)**.

2.9.1.8. Aircrew will hand carry helmets and oxygen masks unless packed in a hard protective case while traveling on any commercial flight. Flight helmets, oxygen masks, and D-1 bags will not be palletized unless placed in a crush proof container to prevent damage. **(T-1)**.

2.9.1.9. AFE will establish issue and turn-in procedures for individually issued helmets. **(T-1)**.

2.9.1.10. When O2 masks are attached to helmets, only one label indicating the date due next inspection is required. Attach label to the helmet or O2 mask hard-shell, as appropriate.

2.9.1.10.1. MAF AFE personnel will perform all helmet postflight inspections at home station and at deployed locations with AFE deployed support. **(T-2)**

2.9.1.11. Flying units will not procure or use commercially procured/direct vendor purchase helmets without approval of AFLMC/WNZC (Robins AFB GA) and MAJCOM AFE office. **(T-1)**.

2.9.1.12. Battle Field Airman helmets issued to operators are considered individual issued equipment. The user is responsible for ensuring serviceability in accordance with TC 3-21.220, *Static Parachuting Techniques and Training*, and TC 18-11, *Special Forces Military Free-Fall and Double Static Line Operations*.

2.9.1.13. DELETED

2.9.2. **HGU-56/P & Aircrew Ballistic Helmet (ABH). Lead Command – AFGSC.** AFE will provide and maintain HGU-56/P and/or Aircrew Ballistic Helmets for rotary-wing aircrew. **(T-1)**

2.10. Aircrew Optical Devices and Accessories.

2.10.1. Store high value optical devices in a secure area when not in use.

2.10.1.1. Assets issued to aircrew will be done through AFERMS. **(T-1)**.

2.10.1.2. Aircrew will perform preflight inspection and operational checks in accordance with governing TOs on all personal flying equipment, including NVDs prior to the first flight of the day. **(T-1)**.

2.10.1.3. AFE technicians will complete an annual vision exam administered by the optometry clinic AFI 48-123 *Medical Examinations and Standards*, to ensure they meet visual requirements for maintaining NVDs. **(T-2)**. Technicians must have 20/20 vision (corrected or uncorrected) to perform NVD maintenance in accordance with TOs 12S10-2AVS9-2 *Maintenance Manual, Intermediate with Illustrated Parts Breakdown, Image Intensifier Set, Night Vision, Type AN/AVS-9 (V)* and 12S10-2AVS10-2 *Image Intensifier Set, Panoramic Night Vision Goggle*. **(T-1)**.

2.10.2. **Joint Helmet Mounted Cueing System (JHMCS) Guidance. Lead Command – ACC.**

2.10.2.1. ACC is the CAF lead for the distribution of JHMCS to include its test equipment. MAJCOM and personnel will coordinate with ACC/A3TOA, DSN: 312-574-5336/3063, for the equitable distribution of JHMCS and its testers. Distribution will be accomplished using prioritization procedures below. **(T-1)**.

2.10.2.1.1. JHMCS distribution priorities: Every effort will be made to ensure JHMCS is distributed to units based on MDS mission requirements (deployed aircraft, AEF spin-up, etc.). Safety of flight and combat capability will be the two primary concerns. **(T-1)**.

2.10.2.1.2. Initial issues for Upper Helmet Vehicle Interface (UHVI) cables and Display Units (DU) will be routed through each respective MAJCOM to ensure the need is legitimate as to not strain the manufacturing and repair capability from Rockwell Collins Elbit Vision Systems of America. **(T-1)**.

2.10.2.1.3. The basis of issue (BOI) for DUs will be 1.5 per Primary Mission Aerospace Inventory, Primary Training Aerospace Inventory, and Primary Developmental Aerospace Inventory aircraft. Aircraft production/depot facilities do not have assigned aircraft. Their BOI will be one per aircrew member with one additional as a spare. This will ensure that there are enough DUs for the stand up of aircrew flight training B-Courses, JHMCS life cycle, and until the next generation of JHMCS is procured. **(T-1)**.

2.10.2.1.4. When directed by respective MAJCOM, units will redistribute overage quantities of DUs to units in need based on guidance in [paragraph 2.10.2.1.1](#). **(T-1)**.

2.10.2.1.5. Helmet Mounted Test Set (HMD-TS) tester distribution: HMD-TS and laptops will be distributed so that all units have an equitable amount not to exceed authorizations stated in AS 450, *Aircrew Flight Equipment*. Additional testers will be prioritized to units with a mobility commitment to ensure the unit is able to support home-station and mobility operations simultaneously. **(T-1)**.

2.10.2.1.6. JHMCS permanent change of station (PCS) procedures: to ensure proper discipline and management of assets, the JHMCS PCS policy is as follows (**Note**: DUs will not be transferred between units without MAJCOM approval). **(T-1)**.

- 2.10.2.1.7. Pilots who PCS to a JHMCS-equipped unit from a JHMCS-equipped unit will PCS with their JHMCS visor, MBU-20/P mask, and HGU-55A/P shell with the UHVI installed. **(T-1)**.
- 2.10.2.1.8. Pilots who PCS to a non-JHMCS-equipped unit or non-flying assignment will PCS with their JHMCS visor and MBU-20/P mask (they will not PCS with their HGU-55A/P). **(T-1)**.
- 2.10.2.1.9. Pilots who PCS to a JHMCS-equipped unit from a non-JHMCS-equipped unit or non-flying assignment will obtain their JHMCS visor and helmet from the gaining unit. **(T-1)**.
- 2.10.2.1.10. Pilots who attend training courses (i.e. Senior Officer Course, B- Course (Refresher), etc.), will bring their JHMCS equipment to training and their subsequent assignment. AFE at these training courses need to be prepared to support this requirement if the students do not arrive with JHMCS. This includes budgeting for and maintaining a shop stock. F-15C Active Duty pilots who do not have JHMCS equipment will need to source their JHMCS from their follow-on assignment prior to attending training at Kingsley Field. If they do not, Kingsley Field will provide loaner equipment that will NOT PCS with the pilot unless pre-coordinated with that pilot's gaining unit and Kingsley Field. **(T-1)**.
- 2.10.2.1.11. B-Course Locations for F-15E at Seymour Johnson AFB, NC and F-16 at Luke AFB, AZ, and Holloman AFB, NM will ensure each student is issued an HGU-55-A/P, UHVI cable, and a JHMCS visor. The issued JHMCS items will follow the student to their first operational unit. **(T-1)**.
- 2.10.2.1.12. All other situations or circumstances not covered in this manual will be handled by the appropriate MAJCOM representative. **(T-1)**.
- 2.10.2.2. Flash blindness Protection Devices. Lead Command—AFGSC.**
- 2.10.2.2.1. Pre-position Aircrew Nuclear Flash-Blindness devices on aircraft when directed and in accordance with appropriate aircraft or MAJCOM/COCOM operations guidance. Quantities of flash blindness devices will be as specified in the appropriate KC-135, RC-135 or KC-46A 11- 2MDS series Vol 3 Addenda A or B-2/B-52 AFE Configuration Tables located on the HAF AFE SharePoint®. **(T-1)**.
- 2.10.2.2.2. Polarized Lead-Zirconate-Titanate (PLZT) Aircrew Nuclear Flash Blindness goggles are the only authorized protective equipment for flash blindness protection. Goggle Frames (MIL-G-635), are not authorized for use as flash blindness protection.
- 2.10.2.2.3. DELETED
- 2.10.2.2.4. Each PLZT storage container will be modified by cutting an outline (3/4-inch deep) of a monocular eye shield into the upper right portion of the lid protective cushioning material. **(T-1)**. As an alternate method, units may cut a slot into the protective foam block below where the PLZT light seal sits. Eye shields will be stored face down if placed in the cut out or slide into slot if using the alternate method. Ensure the eye shield elastic string is stowed in a manner to leave a slight loop. Do not wrap the elastic string around the eye shield, otherwise the string will deform the eye shield

foam eye seal. Seal goggle storage containers with AFTO Form 255, *Notice Certification Void When Seal is Broken*. In the event additional monocular eye shields are required units may place them on the aircraft in a suitable container.

2.10.2.2.5. AFE technicians will ensure serviceability of the PLZT top latch helmet mount and power cable assemblies concurrent with the helmet inspections. **(T-1)**.

2.10.2.2.6. For the purposes of inspecting PLZT goggles and conducting technician training, each unit will take a dual visor housing (without the tracks and lens), mount it on a locally manufactured pedestal, and install a top latch assembly and power cord to the visor housing in accordance with TO 14P3-9-21. **(T-1)**. The use of a pedestal (versus a helmet) to inspect the goggles allows the inspector to see the correct light transmission of the goggles as well as transition from open mode to servo mode during the inspection process.

2.10.2.2.7. Due to non-availability of PLZT goggle parts, major disassembly and repair of goggles will not be performed at the unit level. If a unit cannot troubleshoot or correct a condition, the failed goggle will be returned, via redistribution order to the following: 22 OSS/OSL, McConnell AFB, KS (AMC/AMC gained) or 2 OSS/OSL, Barksdale AFB, LA (AFGSC/ACC) to the “depot account” established for AMC/AMC gained units and AFGSC/ACC. In return, McConnell AFB or Barksdale AFB AFE will release a serviceable asset back to the unit. **(T-2)**.

2.10.2.2.8. After exhausting any remaining serviceable stock of legacy eye shields, units have authorization to use eye shields using the following information: Large White Eye Patch, Mfr. Part Number: PR147LG., Manufacturer: Optics Inc.

2.10.2.3. **Aircrew Night Vision Devices. Lead Command—ACC .**

2.10.2.3.1. Units will place an inspection due date label on the NVD monocular housings. **(T-3)**.

2.10.2.3.2. When requested, AFE will provide MAF airlift (C-5, C-17, C-27, and C-130), KC-135/KC-46 SOAR and AFSOC C-130 variants aircrew hand held power supplies, or the option of using a monocular to conduct airlift scanning or SOAR duties. **(T-1)**.

2.10.2.3.3. Inspections for the PVS-14, PVS-18, PVS-15A, PVS-31A, PSQ-36, PAS-29A's, and Ground Panoramic Night Vision Devices are conducted every 18 months and post deployment by qualified AFE personnel. Inspections will be recorded and tracked in AFERMS. **(T-2)**. The user is responsible for ensuring serviceability prior to use in accordance with operators manual located in NVD case.

2.10.3. **Aircrew Laser Eye Protection. Lead Command—ACC.**

2.10.3.1. ALEP will be secured and tracked in AFERMS to prevent loss or theft. Units will use sign in/sign out procedures when issued and conduct periodic inventory inspections. **(T-2)**.

2.10.3.2. For disposition of unserviceable ALEP, AFE personnel will separate the lenses from their frames, and then ship the lenses to ATTN: Aircrew Flight Equipment, 1981 Monahan Way Bldg. 12/Rm 204, Wright Patterson AFB, OH 45433 for incineration. **(T-1)**.

2.10.3.3. The ALEP frames alone are not classified/controlled, therefore can be disposed at the unit level. ALEP frames and complete serviceable ALEP will not be accepted by Human Systems Directorate Wright-Patterson AFB, and will be returned to the unit. **(T-1)**.

2.10.3.4. All shipments must include an inventory listing with serial numbers (of frames from which lenses came), unit and point of contact info, and shipment tracking number. **(T-1)**. The preferred shipping method is Outbound TMO Office, via DD Form 1149, *Requisition and Invoice Shipping Document*-tracked TCN.

2.11. Aircrew Chemical, Biological, Radiological, Nuclear (ACBRN) Equipment. Lead Command—ACC.

2.11.1. Unit AFE personnel will maintain individual aircrew sizing information in AFERMS, be responsible for requisitioning, fitting, and maintaining ACBRN equipment D-Bags (AERP/JSAM) and associated D-Bag items), and be readily available for donning and doffing operations. **(T-1)**.

2.11.2. Units will ensure the full BOI for ACBRN operations is available to each aircrew member deployable to a CBRN threat area. See AFE Configuration Tables located on HAF AFE SharePoint®. **(T-1)**.

2.11.3. Units will use the following guidance when maintaining D-Bags. **(T-1)**.

2.11.3.1. Option #1: Build D-Bags as a complete D-Bag (complete BOI installed).

2.11.3.2. Option #2: Create a separate “Mini” D-1 bag with one complete CBRN ensemble (remaining D-bag sustainment/BOI items will be in a second bag/storage container). **(T-1)**.

2.11.3.3. AECMs have unique ACBRN requirements. Until JSAM is fielded, AECM will use the M50 ground crew mask and filters issued as part of the C-Bag. **(T-1)**. AECM D-Bag BOI deviation guidance is outlined in AFE Configuration Tables located on the HAF AFE SharePoint®.

2.11.3.4. Aircrew operating on E-3 and E-8 aircraft will be provided the MBU-13/P with modified manifold and pigtail adaptor (or AERP as applicable) until JSAM is fielded. **(T-1)**.

2.11.3.5. Units will use A3TF master donning checklists capturing mission needs and equipment configuration located on HAF AFE SharePoint®. **(T-1)**. Place donning checklist in the D-1 bag.

2.11.3.6. Aircrew deploying into CBRN threat areas will be provided one complete ACBRN equipment “Mini” D-1 bag to hand carry unless otherwise directed by MAJCOM guidance. **(T-1)**.

2.11.3.7. Units must also comply with theater specific reporting instructions for ACBRN requirements when the “Mini” D-1 bag is insufficient to meet their requirements. **(T-1)**. Follow theater, MAJCOM, and unit specific guidance for employed area operations and redeployment.

2.11.3.8. Units should report all shortfalls through their home station or deployed leadership to minimize impact on ACBRN capability.

2.11.4. Procedures will be established for mass filter element and battery installation. **(T-1)**.

2.11.4.1. Close coordination should be maintained between AFE and the flying unit in order to ensure D-Bags are prepared for issue or deployments.

2.11.4.2. Units are not required to open and install BA-5588/U Batteries in the CQU-7/P Blower, C2A1 Filters on the CQU-7/P blower/AERP manifold, Emergency and Inline O2 Filters, and 9 volt Alkaline Batteries in the MXU-835/P Intercommunication Unit when preparing D and D-1 bags for deployment. All of these items may be bulk stored/shipped.

2.11.4.2.1. The Combatant Command may issue direction when to install these items once in the deployed theater depending on the current CBRN threat level. AFE may use filter and battery “shop test sets” (instead of opening new filters and batteries) to accomplish routine/periodic inspections as well as prepare equipment for aircrew pre-flight procedures. Units will follow specific MAJCOM guidance for local and higher headquarters exercises and evaluations. **(T-1)**.

2.11.4.2.2. When crew members return from contingencies and AERP equipment was not used, remove the batteries, and keep them in their original sets. Additionally, to prevent fire or explosion store batteries in plastic bags. If batteries were used, remove from blower assembly and mark for training use prior to placing them in a plastic bag.

2.11.4.2.3. Units may use expired filters and alkaline batteries for local and higher headquarters exercises and evaluations. Follow AERP TO guidance on lithium blower batteries used for training.

2.11.5. **Aircrew Coverall CWU-66/P (or approved equivalent)**. Aircrew are responsible for tracking service-life/laundrying of the CWU-66/P or approved equivalent. When CWU-66/P or approved equivalent is removed from package, annotate the date removed with permanent ink on the laundry instruction label.

2.11.6. **Cotton undergarments**.

2.11.6.1. Cotton undergarments are optional with the CWU-66/P or the approved equivalent. This option must be determined by individual aircrew, not AFE personnel. **(T-1)**.

2.11.6.2. Units will maintain sufficient quantities of cotton undergarments in order to provide individual aircrew the option to have these items placed in their bags. If the aircrew opts to have cotton underwear in their bags, the BOI for the D/D-1 bag will be based on the quantities listed in AFE Configuration Tables located on the HAF AFE SharePoint® and the items will be installed in the D/D-1 Bag. **(T-1)**. If an individual aircrew member does not desire to have cotton underwear in his or her bags, AFE is not required to install cotton underwear or masking tape in their D/D-1 bag.

2.11.7. **Filter, oxygen emergency assembly**. This filter is only required when the MBU-19/P is used with a parachute/ejection seat. Per TO 14P3-1-151, *Aircrew Eye Respiratory Protection (AERP) Equipment*, non-ejection type aircraft not utilizing a bail-out bottle are not required to replace the O2 oxygen filter as long as the emergency O2 connector seal has not been broken.

2.11.8. **O-ring, emergency O2**. This item is only required when the filter, oxygen emergency assembly is included in the D-Bag.

2.11.9. M295 Kits & M-9 Paper.

2.11.9.1. Aircrew are required to have one M295 Kit installed in the D-1 bag. These items will be taken from the aircrew member's C-bag when conducting flight operations in a CBRN environment. Aircrew will install these items in their D-1 bag. **(T-1)**.

2.11.9.1.1. Aircrew members will replace or replenish of their M295 OR M-9 tape used up/depleted from their C-Bag. **(T-1)**. They can obtain those items through the local LRS.

2.11.9.1.2. AFE will maintain 60 M295 kits (3 boxes/240 each mitts) for ACCA processing per assigned UTC with an ACCA capability. **(T-1)**.

2.11.9.1.3. Store operational M295 decontamination kits in their original unopened unit of issue containers (unit of issue is box ["BX"]) with UTC assets. Boxes of operational M295(s) will only be opened and distributed for ACCA operations when directed to do so by command authority (i.e. installation commander, MAJCOM directives, SPINS, ETC.). **(T-1)**.

2.11.9.1.4. Use of expired M295 kits for training is authorized.

2.11.10. B-52 CONECT and C-17A intercom unit adaptor.

2.11.10.1. The following battery guidance is applicable to B-52 and C-17A intercom unit batteries.

2.11.10.2. Install battery or batteries in the unit only. Spare batteries are not required to be added in the D/D-1 bag.

2.11.10.3. Use the expiration date stamped on the battery to determine date of expiration as long as it passes voltage inspection.

2.11.11. Procedures for Using ACBRN Equipment for Training.

2.11.11.1. Units will maintain ACBRN equipment for training purposes. Units will maintain tariff sized training bags to support crew members during recurring training and local exercises. Units will ensure a sufficient amount of bags are on-hand. **(T-1)**. Inspect and mark training equipment in accordance with AFI 11-301V1.

2.11.11.2. Crew members use their individually issued or fitted "above-the-shoulder ACBRN" equipment for wing flying exercises and flight training in accordance with IG rules of engagement or instructions. **Exception:** Units may use "above the shoulder" ACBRN training equipment for these events. However, if the flying exercise/training is done on an aircraft/at altitude, the training equipment must meet safety-of-flight standards, be inspected, maintained and operationally serviceable in accordance with applicable TO(s). **(T-2)**.

2.11.11.3. The standard CWU-27/P flight suit adequately replicates the CWU-66/P or approved equivalent suits for training purposes. However, units may use expired CWU-66/Ps for training when expired suits and storage space are available.

2.11.11.4. In addition to the "above-the-shoulder" equipment, a training ensemble for AERP equipment will consist of: 1 each C2A1 filter canister; 1 pair/set of lithium batteries (per assigned crewmembers); 2 each plastic overcapas; 1 pair of butyl gloves w/inserts; 2

pairs of overboots; and 3 suspension straps and any flight equipment worn specific to the MDS being supported (i.e. G-suit, survival vest, body armor, touchscreen flight gloves...etc.). **(T-1)**.

2.11.11.5. Units determine ACBRN training quantities based on local needs.

2.11.11.5.1. DELETED

2.11.11.5.2. DELETED

2.11.11.6. Aircrew will turn-in ACBRN training equipment to AFE immediately after use. **(T-1)**.

2.11.11.7. AFE is authorized one set (2 each) AERP batteries, per aircrew, per year to support ACBRN training requirements and exercises. This requirement will be included in annual ACBRN funding forecasts. **(T-1)**.

2.11.11.8. AFE is authorized three boxes (240 individual mittens) of M295s per year to support ACBRN training requirements and exercises. This requirement will be included in annual ACBRN funding forecasts. **(T-1)**.

2.11.12. Aircrew Contamination Control Area/Aircrew Contamination Control Station (ACCA/ACCS) Equipment.

2.11.12.1. ACCA/ACCS Kits: Open Air Kits (OAK), Forward Operating Base/Dispersal (FOBD) Kits and Collective Protective System (CPS) Kits are the standard kits for ACCA/ACCS operations.

2.11.12.2. ACCA/ACCS kits will be inspected IAW the Inspection, Inventory and Build-Up Guide located on the HAF AFE SharePoint® site. **(T-1)** ACCA/ACCS Kits (OAK and FOBD kits) used to fill UTC requirements are inspected on the same frequency as mobility packages. Inspections will be tracked in AFERMS. **(T-1)**

2.11.12.3. Each group (or equivalent) with an ACBRN mission and/or 9ALCW requirement will possess a training ACCA/ACCS for each system they operate for aircrew training and exercises. **(T-3) Exception:** AETC and AFMC units may coordinate the use of ACCA/ACCS kits belonging to operational units near their locale. ANG units will maintain the ACCA/ACCS kits per lead UTC to support both operational and training requirements. **(T-3)**

2.12. Emergency Electronic Communication and Signaling Equipment.

2.12.1. CAF Units: A Survival Kit Electronic Device (SKED) may be placed in survival kits/accessory kits as a supplemental peacetime 406mhz capable device. Units that fly with a PRQ-7/A installed in survival vest/back pack on all flights will remove and turn in PRC-90 series radios from survival kits/accessory kits. For all other units, the operations group commander will determine if voice capability (PRQ-7/A) is required for daily sorties. SERE/AFE must advise the operations group commander on search and rescue capabilities/procedures to assist with the commander's risk assessment. **(T-2)**.

2.12.1.1. Units may remove the PRC-90 series radios from service once the SKED is on-hand and approved by their respective MAJCOM. Units will contact their respective MAJCOMs for disposition instructions for PRC-90 series assets. **(T-2)**.

2.12.2. Combat Survivor Evader Locator (CSEL). Lead Command—ACC

2.12.2.1. The USAF is the lead service for the CSEL system. The AN/PRQ-7(A) series hand held radios (HHR) is the DoD system of record for combat survival radio systems. These devices provide over-the-horizon and line-of-sight communication, and 406 MHz personnel locator beacon and GPS capabilities. The AN/PRQ-7(A) HHR incorporates approved National Security Agency Communications Security (COMSEC) and provides Terminal Area Communications and Terminal Area Guidance capability.

2.12.2.1.1. AFE Continuation Training (AFECT) programs will ensure aircrew members are familiar with the features of HHR (e.g. AN/PRQ-7, etc.). Aircrew will be familiar with the care of equipment and equipment configuration (location, spare batteries, headphone, quick use guide etc.). **(T-1)**.

2.12.2.2. Units will train aircrew on the classification level of HHR's. **(T-1)**.

2.12.2.3. Units will create a login and register each 406 MHz capable HHR/Device in Joint Sarsat Electronics Tracking System (JSETS) in accordance with [para 2.12.4](#). **(T-1)**.

2.12.2.4. Units will establish COMSEC and crypto accounts to requisition materials required for programming, and provide status of accounts to MAJCOM staff. **Exception:** Units without a requirement to load classified data. **Note:** Use of another section's crypto account is authorized as long as AFE has unrestricted access. **(T-2)**.

2.12.2.5. Units will establish Electronic Software Distribution System accounts to access software. **(T-2)**.

2.12.2.6. Units will acquire GSA approved safes for home station and each mobility UTC, to store classified and cryptographic materials. A safe is required to store the GPS Key Fill Device/Simple Key Loader (SKL) with GPS encryption keys. The GPS Key Fill Device (KFD)/SKL is a Cryptographic Controlled Item (CCI) item and AFE must be trained and qualified on the device prior to use. In regards to loading operations, CSEL Planning Computers (CPC) become classified once CSAR Special Instructions (SPINS) information is loaded and must be stored and handled appropriately. **(T-2)**.

2.12.2.7. Units will coordinate the following with the wing encryption custodian. **(T-2)**.

2.12.2.7.1. Coordinate with the wing encryption custodian to acquire a minimum of one SKL/KFD, with two spare batteries, per UTC supported and sufficient numbers for home station use.

2.12.2.7.2. Validate requirements for crypto materials to include Traffic Encryption Key and authenticator disk.

2.12.2.8. Configure, load and issue HHRs in the following manner.

2.12.2.8.1. Units will follow SPINS guidance when deploying to the Area of Responsibility (AOR) for programming, reporting instructions and adding HHRs to the routing tables. HHRs will be handled in the same manner as other classified aircrew equipment/material as applicable. Units will not use the password option. **(T-2)**.

2.12.2.8.1.1. Loading SATCOM and GPS keys for non-contingency/daily flight operations does not make the HHR classified. When loading radios for non-contingency/daily flight operations, units will follow the general loading

parameters (parameters only, not CSAR data) located in theater SPINS. (T-2).

2.12.2.8.1.2. AN/PRQ-7(A) HHR installed in aircraft prepositioned survival vests, backpacks or kits will be configured as stage two zeroized radios in accordance with zeroization procedures outlined in T.O. 31R2-2PRQ7-1, *Radio Set AN/PRQ-7* and installed into survival vests, backpacks, and survival kits with two non-rechargeable batteries. Do not install the non-rechargeable battery on the PRQ-7A. (T-2).

2.12.2.8.2. Units will attach HHR using the plastic D-ring connected to the HHR carrying loop. Attach TO 31R2-2PRQ7-21, *Quick Reference Guide -- AN-PRQ-7 And AN-PRQ-7A*, Radio Set (printed on brown/tan Tyvek material) to the survival vest radio pocket in accordance with TO 14S1-3-51, *Operation and Maintenance Instructions for Survival Kit Components and Survival Kit Container Assembly MD-1, ML-3, ML-4, SRU 16/P, Parachute Spacer Kit (PSK) A-16 Sled, Global Survival Kit* utilizing accessory attachment procedures. (T-2).

2.12.2.8.3. Units deploying or tasked to fly into AORs will issue HHRs from home station (minimum of two per crew for LFA units). (T-2)

2.12.2.8.4. (LFA Only) Install a spare HHR battery in the survival vest in a standardized location. Battery type (rechargeable/non-rechargeable) will be at the discretion of each unit. Spare batteries do not need to be placed in polyethylene interlocking bags, but must have battery cover installed. If units use rechargeable spare batteries they must be placed into service with a full charge. (T-1).

2.12.2.8.5. (LFA Only) When the HHR is installed in survival vests, inspect survival vests at intervals per TO 14S-1-131, *Operation and Maintenance Instructions – Survival Vest Assembly - SRU-21P, Airsave, Aircrew Survival Armor Recovery Vest, Insert, and Packets (SARVIP), And Load Bearing Vest (LBV)*. When rechargeable batteries are used, units must perform a battery replacement with a completely charged battery every 30 days. This battery replacement will be documented on the back of the survival vest DD Form 1574 and applicable documentation tracking system. (T-1).

2.12.2.8.6. Aircrew transiting through locations enroute to the AOR will store classified HHR's in the same manner as other classified aircrew equipment/material. (T-1).

2.12.3. Personnel Locator Beacons (PLB) Lead Command—ACC.

2.12.3.1. AFE personnel will locate inadvertent beacon activations where Egress personnel are not assigned or tasked to do so. Egress responsibilities are further defined in AFI 21-101, *Aircraft and Equipment Maintenance Management*. (T-1).

2.12.3.2. PLBs will be placed in the appropriate mode based on established theater requirements or as directed by MAJCOM, theater instructions, or battle staff. (T-1).

2.12.3.3. Units will ensure the beacon is installed in all back style parachutes. **Exception:** Not applicable to parachutes used on the Escape System Upgrade Program ejections system, AFSOC, or units performing AFSOC missions. (T-1).

2.12.3.4. Units will create a login and register each 406 PLB in JSETS in accordance with [paragraph 2.12.4](#). (T-1).

2.12.4. Joint SARSAT Electronics Tracking System.

2.12.4.1. AFE unit leadership will create a login and register each AFE maintained 406MHZ beacon/device in JSETS via <https://prmsglobal.prms.af.mil> in accordance with the following sub paragraphs. At least two (2) personnel will create a login with a “manager” role. **(T-2)**. Do not create a new organization, as unit designations have already been established, which enables accurate tracking by MAJCOMs.

2.12.4.1.1. The following paragraphs denote some options based on REGAF or ARC affiliation. TFI units will base their construct on which component owns the aircraft/equipment (REGAF vs ARC). **(T-1)**.

2.12.4.1.2. Select AF unit/OSS follow on screen prompts.

2.12.4.1.3. ARC units may use “Unit/OSF” based on organizational alignment. Assets owned by Guardian Angel/Special Tactics units may be loaded as “Unit/RQS/STS”.

2.12.4.1.4. Since these beacons/devices are frequently rotated/swapped out of equipment, do not assign them to individual aircraft, survival vests/kits, parachutes, etc., in the “VEHICLE” block in JSETS.

2.12.4.1.5. Enter beacon/device identification numbers, serial numbers, and convert status from ‘in-pool’ to ‘in-use’.

2.12.4.1.6. Enter the home station 24-hour command post as the primary emergency contact number in the local phone and DSN block of the JSETS beacon contact information section. If a 24-hour command post is not available, an alternate 24-hour base agency may be used (coordinate with MAJCOM/ANG AFE staff).

2.12.4.1.7. Use the responsible MAJCOM command center as a secondary contact number. Place MAJCOM command center name in the command post duty name block and the command center phone number in the command post number block. **Exception:** ARC units may coordinate a different secondary contact number, one that best reflects organizational structure/operations and provides the most effective means of notification (include AFRC/ANG AFE staff in coordination process).

Table 2.1. Command Centers.

ACC – DSN 312-574-1555	AFSOC – DSN 312-579-8900
AETC – DSN 312-487-1859	AMC – DSN 312-779-0360
AFGSC – DSN 312-781-9788	ANG – DSN 312-858-6001
AFMC – DSN 312-787-6314	PACAF – DSN 315-448-8500
AFRC – DSN 312-497-0680	USAFE – DSN 314-480-8200

2.12.4.1.8. Ensure all alternate emergency contacts are aware of the constant responsibility and required actions during a notification or mishap event.

2.12.4.1.9. All USAF AFE registered beacons/devices (existing and new) must be correctly identified/updated (e.g. PRQ-7A vs PRQ-7 etc.). Units must ensure “U.S. AIR FORCE” is selected for agency designation. **(T-1)**.

2.12.4.1.10. All serviceable USAF AFE registered beacons/devices must remain in “Active” and “In Service” status unless clearly identified and segregated from usable

stock in preparation for shipment to another unit or for maintenance.(T-1). This is to preclude any item from being installed in equipment while in “inactive” and/or “in pool” status.

2.12.4.1.11. USAF AFE registered 406 MHZ beacons/devices must remain assigned in JSETS to the owning organization. (T-1). This ensures constant and standardized 24-hour contact information and accountability.

2.12.4.1.12. Deployed AFE maintained 406 MHZ beacons/devices will follow JSETS instructions listed in applicable SPINS (does not apply to transient aircraft/aircrew). (T-1).

2.12.4.1.13. Resolve any policy/reporting issues with the responsible MAJCOM AFE functional manager.

2.12.4.1.14. The AFES or designated representative will ensure all beacon/device point of contacts have current contact information loaded into JSETS. (T-1). The manager’s information can be updated by selecting the profile tab once logged into JSETS.

2.12.4.1.15. AFES will ensure condemned/permanently removed from service 406MHZ beacons/devices are deleted from JSETS. All items physically transferred to new units will also be moved to “in pool” by the losing unit prior to shipment and then moved to “in service” by the gaining unit upon receipt. (T-1).

2.13. Life Preserver Units (LPU).

2.13.1. AFE will provide LPUs to aircrew members and passengers (familiarization and incentive flyers) of ejection seat and single engine aircraft on all flights overwater to include cross-country flights as prescribed in MDS specific operations AFIs. Designated life preservers will be readily available during all overwater flights on multi-place aircraft. **Exception:** LPUs are not required for overwater flights to and from Programmed depot maintenance (PDM)/Depot when route is within power off glide distance to land. (T-1).

2.13.1.1. LFA life preservers packed in A-3 bags will have a seal on the bag and a completed DD Form 1574 attached. (T-1).

2.13.1.2. LFA flying overwater to PDM/Depot, outside of the power off glide range of land, will load required flotation equipment for that MDS. (T-1).

2.13.2. Adult/Child (A/C), A-A-50652 LPU. Lead Command—AMC.

2.13.2.1. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger. Pre-position additional LPUs to meet increased scheduled passenger loads as dictated in each applicable 11-MDS Series Vol 3, Addenda A, or this manual. Units will not use LPU-10/Ps for passengers. (T-2). The A/C LPU does not require pre-fitting prior to use.

2.13.2.2. Refer to TO 14-1-1 for specific MDS compatibility. **Note:** AECMs and aircrew assigned to aircraft without parachutes may wear the A/C LPU.

2.13.3. **LPU-6/P. Lead Command—AMC** . The LPU-6/P infant cot is required for infants 18 months of age and younger.

2.13.4. **LPU-10/P. Lead Command—AMC** . The LPU-10/P or suitable substitute is required to integrate with AFE and is designed for use by aircrew personnel. **Exception:** AECMs can wear the A/C LPU.

2.13.5. **LPU-40/P. Lead Command—AFGSC** . UH-1N units (AFMC excluded) will maintain the capability to respond to NORTHCOM contingency operations by maintaining 12 each LPU-40/Ps and 12 each SEA bottles. **(T-1)**. Inspect in accordance with 14S-1-102-41, *Operators, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List – Low Profile Flotation Collar (LPFC) LPU-40P, Survival Egress Air (S.E.A.)*.

2.14. Life Rafts and Escape Slides.

2.14.1. Units will position sufficient types of life rafts aboard each aircraft on overwater flights to accommodate all aircrew and passenger, per applicable MDS configuration tables. **(T-1)**.

2.14.1.1. Ensure a DD Form 1574 is attached to each aircraft life raft and aircraft actuation handles for life rafts installed in wing well, silos, etc. Ensure time-change information is annotated on the reverse side of the DD Form 1574 in accordance with TO 14S1-3-51. Due to multiple raft activation locations, C-17A units will place a set of DD Forms 1574 for the rafts (one DD Form 1574 per raft) with the AFTO Form 46 to eliminate unnecessary multiple forms. **(T-1)**.

2.14.2. **Air Cruiser-9 (AC-9). Lead Command—AMC**. All users will ensure use is in accordance with safe-to-fly certification at <https://cs2.eis.af.mil/sites/21562/AFE/Safe%20to%20Fly/Forms/AllItems.aspx>. As the approving authority, AFLCMC/WNU maintains OSS&E responsibility. Units are authorized to use the AC-9 as a substitute for the T- 9AF or LRU-14-series life rafts.

2.14.3. **KC-135 Escape Slide. Lead Command—AMC** . AFE is responsible for removal and installation on KC-135 only. AFE will only remove and install for periodic inspection of escape slides. Maintenance Electrical and Environmental sections or outside contracts will remain responsible for maintenance of air/nitrogen cylinder. **(T-1)**.

2.14.4. **C-17/A life raft assemblies. Lead Command—AMC** .

2.14.4.1. AMC/A4RM logistically manages C-17A life rafts and raft assemblies with the assistance of AMC/A3TL.

2.14.4.2. MAF AFE units needing assistance ordering C-17A training rafts will contact their respective MAJCOM AFE office who will then contact AMC/A3TL for guidance and assistance. **(T-1)**.

2.14.4.3. DELETED

2.14.4.4. C-17A units may label raft assemblies by marking the raft assembly's ridged container in any location (including the inside of the container) that can be clearly seen if the raft was removed from its installed aircraft location. The use of self-adhesive labels (e.g. Brother Label machine products, etc.) is an acceptable method of marking.

2.14.5. **KC-46A Escape Slides, Slide/Rafts, and Life Rafts. Lead Command—AMC**.

2.14.5.1. AFE technicians will not remove, install, inspect or otherwise manage escape slides, slide/rafts, or life rafts and associated survival kits. **(T-2)**

2.14.5.2. Escape slides, slide/rafts are maintained at Warner Robins Air Logistics Center (WR-ALC). Assets will be removed/installed by maintenance personnel for routing to depot facilities.

2.15. Personnel Parachute Systems, Torso Harnesses, Restraint Devices, and Deceleration Devices.

2.15.1. Preflight inspection of personnel parachute or torso harness is the responsibility of the user.

2.15.2. 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. Visitors conducting official business will be kept to minimum and for short duration to minimize opportunity for distraction. Facility space used for packing parachutes will not be used as thoroughfare or passageway to other sections of the facility. **(T-1).**

2.15.3. Ensure compliance with AFJ 13-210(I), *Joint Airdrop Inspection Records, Malfunction/ Incident Investigations, and Activity Reporting*, as applicable.

2.15.4. Personnel restraint harnesses will remain with the aircraft during depot-level maintenance. **(T-1).**

2.15.5. Egress elements are responsible for removal and installation of integrated parachutes, survival kits and oxygen connectors as outlined in applicable aircraft Job Guides.

2.15.6. Egress sections may store serviceable parachutes and survival kits for “Red Ball” unscheduled maintenance instances.

2.15.7. **Restraint Devices (PCU-17/P and HBU-6/P Safety Strap). Lead Command—AMC.** The PCU-17/P with the HBU-6/P safety strap is the only restraint device authorized for use in fixed wing aircraft (i.e., C-17, C-130, KC-135, etc.).

2.15.8. **Air Warrior Primary Survival Gear Carrier (PSGC)/Personal Restraint Tether (PRT). Lead Command—AFGSC.** The combination survival vest and tether system is used in the UH-1.

2.15.9. **ACES II Drogue System. Lead Command—ACC.** 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 database forms may be used in lieu of AFTO Form 392.

2.16. Personnel Parachute, Torso Harness, and Restraint Harness Accessories.

2.16.1. Personnel back style parachutes will be equipped with the following items: emergency locator beacon, automatic release, emergency bailout oxygen cylinder, hook-blade knife, and oxygen connector bracket. **Exception:** Not applicable to AFSOC or units supporting AFSOC missions. All AFSOC configurations must be approved through AFSOC/A3OZ (Operations Division, Aircrew Performance Branch).

2.16.2. In order to maintain product warranties, recommended maintenance and/or service requirements for all automatic parachute releases contained in approved/manufacturer’s guidance, will be treated as mandatory requirements. **(T-2).**

2.16.3. Restraint harnesses will be equipped with oxygen connector brackets. **(T-1)**.

2.16.4. **Personnel Lowering Device (PLD). Lead Command—ACC.**

2.16.4.1. DELETED

2.16.4.2. If PLDs are not worn on a daily basis, sufficient quantities will be stored properly in the unit's mobility package in serviceable condition. **(T-1)**.

2.16.4.3. Units that possess PLDs and have a mobility requirement must ensure harnesses are configured for PLD installation at all times (i.e., PLD reinforcement webbing, lowering device pocket installed.), even if PLDs are not worn on a daily basis. Additionally, the harness must be refit once the PLD is installed. **(T-2)**

2.16.5. **Emergency Oxygen Cylinders.** AFE personnel are responsible for the visual inspection of emergency bailout oxygen cylinders needed for back style parachutes used on bomber and T-38 aircraft.

2.16.6. **MXU-22/P Inflatable Lumbar Support Pad.**

2.16.6.1. Use of the lumbar support will be limited to those provisions outlined in TO 14P3-12-1, *Use, Fitting, Installation and Repair. Inflatable Lumbar Support Pad Type MXU- 22/P* , TO 14D3-11-1, *Operation, Inspection, Maintenance, and Packing Instructions for Emergency Personnel Recovery Parachute (Chest, Back, Seat Style, and Torso Harness)*, and TO 14-1-1. **(T-1)**.

2.16.6.2. The lumbar support pad will be inspected in accordance with appropriate TO and concurrent with the item it is installed on. **(T-1)**.

2.17. Survival Kits, Survival Vests, Survival Backpacks, and Aircrew Body Armor.

2.17.1. The intent is to ensure requirements to survive an isolating event are met and to standardize components installed in all survival kits, survival vests, and backpacks across the Total Force. Survival components have been selected to meet the need of the survivor from a global survival and recovery perspective.

2.17.2. Mandatory survival components. Mandatory components will be used across the Total Force as prescribed by TOs, to include stated exceptions to ensure aircrew have required items no matter which configuration of equipment is used. **(T-1)**.

2.17.3. T.O. approved optional survival components. Wing level AFE will standardize all optional survival components installed in survival kits/vests/backpacks. Component selection will be coordinated with SERE specialists, consider operating environment/theater and approved in writing by the group commander. **(T-2)**.

2.17.4. Modernization Process. Requests for new survival components must be vetted through SERE, AFE CFM, AFLCMC, all MFMs/ANG and appropriate test agencies. Requesting MAJCOM is responsible for ownership and funding of the initial acquisition, development, testing, and fielding process. Lead MAJCOM will ensure appropriate AFMC function is engaged to support modernization efforts. **(T-1)**.

2.17.5. Waiver authority for the selection and substitution of non-standard survival components is MAJCOM/A3. The MAJCOM/A3 may delegate to the 3-digit level only. ANG units will coordinate approval through ANG AFE Staff. **(T-1)**.

2.17.6. Only authorized and approved survival kits, survival vests and/or survival backpacks, and aircrew body armor properly configured and maintained will be worn or used. Inspections will be accomplished in accordance with appropriate TO and MAJCOM directives (e.g. T.O. 14S1-3-51, 14S1-1-131). **(T-1)**.

2.17.7. When survival vests, survival kits, and/or Survival Backpacks are carried on commercial airlines, remove the following items in accordance with TO 00-20-1: Signal, smoke and illumination, MK-13 or MK-124; Signal kit, personnel distress, A/P 25S-5A; container, waterproof, with matches; and knife, pocket.

2.17.8. **Survival Kits.**

2.17.8.1. **CNU-129/P Survival Kits. Lead Command—AFGSC .**

2.17.8.1.1. Units maintaining CNU-129/P survival kits for B-52 aircraft will ensure survival kits are clearly marked with crew position abbreviation (P, CP, EW, N, G, or RN) and local control number. **(T- 1)**

2.17.8.1.2. AFE sections requiring maintenance support for repair of survival items such as repair of the CNU-129/P kit will accomplish the applicable forms and forward items to the appropriate maintenance activity for repair or overhaul. The AFE Flight Chief or contractor leads will coordinate with maintenance activities to ensure inspection/maintenance capability. All equipment returned to the AFE section from maintenance support activities will be given a quality acceptance inspection. **(T-1)**.

2.17.8.2. **Parachute Spacer Kit (PSK). Lead Command—AFGSC .** PSK will be manufactured locally using fabrication instructions published in TO 14S1-3-51. When used, PSKs will be attached to the parachute harness by engaging both ejector snaps and attaching them to the accessory “D” rings of the parachute, and the PSK will remain attached to both sides during parachute descent and/or emergency ground egress except for tree and power line landings. **(T-1)**.

2.17.8.3. **MA-1 and MA-2 Survival Kits. Lead Command—ACC .** MA-2 kits may be used in lieu of MA-1 kits but due to different life raft sizes MA-1 kits are not a suitable substitute for MA-2 kits.

2.17.9. **Survival Vests.**

2.17.9.1. All ejection seat aircrew will wear survival vests during contingency missions and transoceanic flights. **(T-2)**.

2.17.9.2. Wear of the survival vest during local sorties, cross-country missions and exercises will be at the discretion of group commanders (or equivalent) based on risk management, and procedures published in applicable 11-2MDS-Specific, V3, **Chapter 8** (Local Procedures) or as directed by theater guidance as applicable. **(T-2)**.

2.17.9.3. Units must pay special attention to the location of survival vest pocket to ensure flight equipment does not interfere with aircraft controls and suits the aircrew member. Units will incorporate guidance regarding component and pocket placement into local supplements or operating instructions. **(T-2)**.

2.17.9.4. Issued survival vests must be serviceable and configured to the maximum extent possible in accordance with tasking COCOM guidance. **(T-2)**.

2.17.9.4.1. Prior to issue or repositioning, units must review tasked AOR/COCOM guidance for additional requirements. **(T-2)**.

2.17.9.4.2. If timing allows, AFE for strike and support aircraft transitioning multiple AOR's, will consult with local PR SMEs to identify or provide any additional requirements. **(T-2)**.

2.17.9.5. Air Warrior (AW). Lead Command—AFGSC.

2.17.9.5.1. Utilization of the PSGC leg restraint straps is mandatory. **(T-1)**.

2.17.9.5.2. The PSGC is approved for use as an insertion and extraction device for Search and Rescue (SAR) personnel.

2.17.9.5.3. For SAR insertion operations, attach PSGC to the hoist using a locking carabineer attached directly to the PSGC front lifting loops. The carabineer must meet the carabineer requirements for ANSI Z359.1 (tensile strength 5000 lb. (22.2 kN), gate face 220 lbs. (1 kN), and side gate strength 350 lbs. (1.55 kN). **(T-1)**.

2.17.9.5.4. The PRT is used for securing personnel to the aircraft. The PRT will be connected to PSGC by means of a P-070 Stainless Steel Pear Link and Snap Link (locking carabineer) to the upper back retention loop. **(T-1)**.

2.17.9.5.5. Blackhawk Tactical SERPA holster/belt system™ is approved as an alternative holster system used to carry the M-9 pistol on the PSGC and thigh configurations to achieve the required magazine retainability. AFE will issue the AW “shoulder rigging” holster/assembly if aircrew choose to wear the holster in the shoulder configuration. **(T-1)**.

2.17.10. Aircraft Minimum Survival Kit (MSK). Lead Command-AMC.

2.17.10.1. The MSK provides minimum signaling and survival component needs to ferry aircraft for PDM input. MSKs are mandatory when directed by MDS Series AFI 11-2MDS V3, Addenda A, or when directed by this manual /AFE Configuration Tables. AFE will use a survival vest or aircrew survival backpack (when fielded) with standard vest/survival backpack components to include SKED or survival radio/spare battery. **(T-1)**. **Exception:** Joint Base Andrews (89 OSS C-32A only) is authorized to maintain dedicated MSKs for depot input until survival backpacks are fielded. See AFE Configuration Tables, located on HAF AFE SharePoint® for MSK component requirements for C-32A PDM inputs.

2.17.10.2. AFE will use serviceable spare survival vests/aircrew survival backpacks (when fielded), or assets from an aircraft “set” to satisfy MSK requirements. **(T-2)**.

2.17.10.3. Time change items and munitions used to satisfy MSK requirements going to depot facilities will have a minimum of one-year remaining on service life. **(T-1)**.

2.17.11. KC-10 Auxiliary Survival Kit (ASK). Lead Command—AMC. Each KC-10 AFE shop will build up one ASK for installation on each assigned aircraft. To assemble this kit, line a 7-person accessory kit with 1-inch Etha Foam, ensuring it will float and pack with survival components. **(T-1)**. See AFE Configuration Tables located on the HAF AFE SharePoint®. Document inspections on applicable AFTO Forms and attach a DD Form 1574 to each kit annotating date inspected and date due next inspection, and ensure the time-change

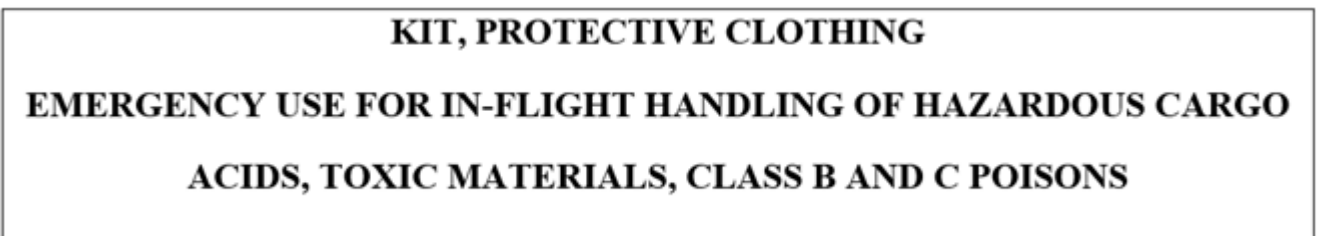
information is annotated on the reverse side of tag. Stencil each ASK with 1-inch letters as follows: **AUXILLARY SURVIVAL KIT, KC-10 SURVIVAL COMPONENTS INSIDE.**

2.17.12. Aircraft Protective Clothing Kit (PCK). Lead Command—AMC.

2.17.12.1. PCKs contain protective clothing for use by aircrew during emergencies aboard aircraft carrying hazardous cargo in accordance with AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*. See AFE Configuration Tables located on the HAF AFE SharePoint® for a list of components. Units may build kits in accordance with AFMAN 24-204 or purchase commercial kits meeting or exceeding AFMAN 24-204 requirements. Units should contact base environmental, medical services, or fire protection personnel to determine adequacy of commercial kits being considered.

2.17.12.2. Inspect PCKs on a one-year cycle. Pack and seal PCKs in a metal, fiberglass, or plastic commercial container not to exceed 12 x 18 x 24 inches. Attach a DD Form 1574 to each container indicating the date inspected and date due next inspection. Stencil each PCK with 1-inch letters as follows:

Figure 2.1. PCK Stencil Label.



2.17.13. LFA Alert or Specialized Mission Equipment.

2.17.13.1. When directed, rations and water are placed aboard aircraft as a source of subsistence during operational commitments. Requirements for subsistence items are shared responsibilities among AFE (delivery, uploading, and downloading), Operations and Plans (quantify as per mission needs), and Services (commissary liaison, approval agency, and memorandum of understanding [MOU]).

2.17.13.1.1. These organizations will establish a MOU to specify and define responsibilities for forecasting, funding, requisitioning, storing, and issuing rations to meet the unit's mission requirements. Agencies will ensure that procedures to demonstrate and meet operational need timelines are included i.e. unit recall and or response times. Responsibilities for subsistence rations and water are contained in AFI 25-101, *War Reserve Materiel (WRM)*. Due to the lack of proper refrigerated storage facilities within AFE facilities, some rations will require courtesy storage at appropriate facilities. **(T-1)**.

2.17.13.1.2. This capability will be demonstrated during all IG inspections to the extent necessary to prove operational response timing and capability. **(T-1)**.

2.17.13.1.3. AFE tasked with Strategic Aircraft Regeneration Team i.e., Bomber Strategic Aircraft Regeneration Team, Tanker Strategic Aircraft Regeneration Team, and Reconnaissance Strategic Aircraft Regeneration Team (RSART) responsibilities

will ensure they have the capability to support aircraft and aircrew at the regeneration/recovery locations. **(T-1)**.

2.17.13.2. KC-135 Series/KC-46A units tasked with Operations Plan (OPLAN) 801X will provide cold weather rations, water, and a carbon monoxide detector, as a minimum in accordance with AMCI 13-520, Support of Nuclear Planning and Operations, and applicable 11-2KC-MDS Series V3, Addenda A. Individual specific items to support aircrew for extended on-aircraft alert/recovery periods are satisfied by the issue of individual mobility bags. **(T-1)**.

2.17.13.2.1. During live-aboard conditions, units will use carbon monoxide detectors for KC-135/KC-46A aircraft. **(T-1)**.

2.17.13.2.2. KC-135 and KC-46A units supporting OPLAN 801X Series missions will use the Fluke CO-220 Carbon Monoxide Meter or the Sensorcon Inspector Industrial Pro (CO). **(T-2)** Refer to the Air Mobility Command Carbon Monoxide Detector Concept of Employment for inspection and operation.

2.17.13.2.3. DELETED

2.17.13.2.4. DELETED

2.17.13.2.5. DELETED

2.17.13.2.6. DELETED

2.17.13.2.7. DELETED

2.17.13.2.8. DELETED

2.17.14. **Aircrew Body Armor (ABA). Lead Command—AMC . Exception:** AFGSC is the LC for the Air Warrior Body Armor System

2.17.14.1. Unless otherwise directed, soft armor systems shall have a 5 year service life for units that have constant wear requirements. All others will maintain a 10 year service life. Early removal from service will be based on condition and discretion of AFES. Any armor prepositioned/stored in a deployed location will have a 5 year service life. **(T-1)**.

2.17.14.2. MAF aircrew will be provided body armor when directed by the SPINS. Air Soldier (formally Air Warrior) ABA will be inspected in accordance with TM-1-1680-377-13&P-6 *Technical Manual Operators' Unit and Direct Support Maintenance Manual Including Repair Parts and Special Tools List For Body Armor*. **(T-1)**.

2.17.14.3. Units will record and track the following applicable carrier and panel data: Size, Lot Number, Serial Number, and DOM. **(T-1)**.

2.17.14.4. Aircrew Body Armor, Ace Advantage level IIIA. Service life for this item is considered indefinite as long as it passes inspection and repair criteria.

2.17.14.5. Inspect commercially procured ABA pre-positioned on aircraft, stored in mobility bins, and placed in storage every 365 days. Inspect ABA worn on a daily basis every 90 days. Inspect and maintain as follows:

2.17.14.5.1. Will inspect ABA pre-positioned on aircraft when the seal of the storage container is broken. **(T-1)**.

2.17.14.5.2. Units are authorized to repair or replace parts. If damage is found beyond repair, the ABA will be condemned and the whole unit will be replaced. **(T-1)**.

2.17.14.5.3. Inspect waist band, shoulder straps, and hook/pile fastener tapes for frays or damaged areas and to ensure they function properly. Any damage noted will require an additional visual inspection of the ballistic panel inserts. **(T-1)**.

2.17.14.5.4. Will ensure body panels are not wet (or water stained). **(T-1)**.

2.17.14.5.5. Will visually check manufacturers label to ensure all writing is fully legible. **(T-1)**.

2.17.14.5.6. Reinstall panels. When replacing the panels, you must ensure the correct side is facing out and away from the wearers body. Failure to do so can cause extreme bodily injury and/or death. Each panel will be labeled to indicate which side must face the wearer. **(T-1)**.

2.17.14.5.7. ABA contaminated with undetermined substances will be removed from service, as it may degrade effectiveness and fire retardant properties. **(T-1)**.

2.17.14.5.8. Inspect side panels as follows: ensure there are no open seams, tears, snags, wetness, and or stains. No repairs can be accomplished on these items and they must be replaced if found to be unserviceable. **(T-1)**.

2.17.14.5.9. Replacing parts: the following parts are replaceable and are available through the manufacturer: outer cover is supplied as a complete unit with both front and back shells. The front and back panels are supplied as a set Side panels are individually supplied. Units desiring to procure additional accessories can arrange purchases by contacting the manufacturer.

2.17.14.5.10. Marking: units will mark the ABA with a local control number on the upper left cover area. Stencil with subdued, indelible ink using 1/2 inch lettering. Do not mark ABA with unit designation, since aircrew may need this item in an escape and evasion environment. **(T-1)**.

2.18. Aeromedical Evacuation Crewmember Support. Lead Command—AMC.

2.18.1. It is the responsibility of the local AFE program assigned to support the Aeromedical Evacuation Squadron(s) to individually issue AFE to AECMs for flight operations to include deployed flight operations.

2.18.2. AECM unit commanders will, through active coordination with their supporting AFE unit, develop a process for AECMs to sign out AFE from their supporting AFE unit. AECMs will sign out AFE individually on AF Form 1297, *Temporary Issue Receipt* or equivalent and be personally accountable and liable for assigned AFE. AECMs will return assigned AFE to the AFE unit upon completion of flying sortie and deployment. AECMs will ensure AFE receives inspection by a qualified AFE technician at established intervals. Funding of initial asset purchases is the responsibility of the AE unit. **(T-1)**.

2.18.3. AFE unit commanders will, through active coordination with their supported AE unit, individually issue AFE to AECMs for all flight operations to include deployed flight operations. AFE units will maintain a pool of equipment (see below) to support the maximum

number of AECM flyers/deployers at a given time. Funding of repair parts/replacement assets is the responsibility of the AFE unit. **(T-1)**.

2.18.3.1. Each unit supporting AECMs will maintain equipment to outfit each aircrew position postured to the FFQDE UTC. **(T-2)**.

2.18.3.2. The FFQDE UTC consists of five positions. For example: if the unit has the FFQDE UTC postured 10 times, they maintain equipment for 50 AECMs.

2.18.3.3. The use of FFQDE UTC is to determine appropriate quantities of equipment to support AECM(s). AFE is not part of the FFQDE UTC and therefore not considered "mobility equipment". Units can refer to the MAF Platform Guide, Tab 1, "AECM Supported in FFQDE" column at: <https://usaf.dps.mil/sites/11332/Supply%20Management/Forms/AllItems.aspx?id=%2Fsites%2F11332%2FSupply%20Management%2FPlatform%20Guide%20for%20Active%20Duty%20AMC%20Aircrew%20Flight%20Equipment%20Function&viewid=c182c97c%2D9279%2D4157%2D8ba6%2Dc135afc3f900>

2.18.3.4. RegAF units supporting AECM will maintain 100% of AECM AFE in serviceable and "ready to issue" status. AFRC and ANG units will possess 100% of AECM AFE, however, they are only required to have 25% of AECM AFE in "ready to issue" status. The remaining 75% may remain in serviceable storage status, until it is required for use/issue. **(T-2)**.

2.18.4. AFE requirements for AECMs:

2.18.4.1. Quick Don Oxygen Mask: Required for all flights and inspected in accordance with applicable TOs by AFE personnel. **NOTE:** AECM quick don masks will have low-impedance microphones installed. When flying on C-17A aircraft with high impedance, the medical crew director will use an aircraft installed quick don mask if communication is necessary with the primary aircraft aircrew. **(T-1)**.

2.18.4.2. DELETED

2.18.4.3. Aircrew Body Armor: Required for combat flights only. AFE will inspect ABA in accordance with applicable TO, guidance in this manual, and specific MAJCOM guidance. AFE is not responsible for providing or maintaining ground crew body armor. **(T-1)**.

2.18.4.4. Life Preserver Units (LPU). LPUs are required for overwater flights only. **(T-1)**. Passenger style life preservers are installed on all MAF aircraft and are available for AECMs to use in lieu of LPU-10/P.

2.18.5. AFE AECM Deployment Support:

2.18.5.1. AECMs will depart home station with all required AFE items (see [paragraph 2.18.4](#)). AFE assets will not be staged at stateside hubs or deployed locations. **(T-1)**.

2.18.5.2. Stateside locations where AECMs have stage/hub operations do not always have AFE support. Permanent party/host wing AFE functions at these locations will develop support agreements to ensure AECMs are supported. Support will include but is not limited to equipment maintenance and security. Bases with multiple MDS and MAJCOMs will support this effort jointly. **(T-1)**.

2.18.5.3. Overseas AE operations requiring UTC 9ALAE support do not possess a LOGDET therefore tools, testers, bench stock, and facilities may be limited. AFE technicians deploying for this UTC will require deployed host wing support. Deployed AFE Superintendents/Flight Chiefs will ensure UTC 9ALAE technicians and AECMs have required AFE support. **(T-1)**.

2.19. Passenger Demonstration Kits. Lead Command—AMC.

2.19.1. Passenger-carrying aircraft will have a set of demonstration AFE mirroring all onboard individually issued passenger equipment (i.e., LPUs, EPOS, oxygen masks, etc.). Do not include LPU-6/P LPUs as part of the demonstration kit. **(T-1)**.

2.19.2. To keep this equipment segregated from operational assets, store demonstration equipment in a “red” locally manufactured storage container. Units will stencil both the storage container and each piece of AFE "FOR DEMONSTRATION ONLY" in 1/2-inch black (or contrasting color) lettering. Factory stenciled items such as Training EPOS in original yellow bags already stenciled “FOR TRAINING ONLY” is acceptable. **(T-1)**.

2.19.3. Will store the demonstration EPOS in the yellow “training” pouch. **(T-1)**.

2.20. KC-10 Aircraft Configuration.

2.20.1. Configure aircraft in accordance with applicable 11-2KC-10V3 Addenda A. Aircraft AFE is contractor operated and maintained base supply (COMBS) provided and partially military AFE maintained. Responsibilities are as follows:

2.20.1.1. Serviceable slide-rafts are inspected by the depot level contractor, installed by maintenance personnel, and are not the responsibility of AFE.

2.20.1.2. Adult child life preservers: Each KC-10A AFE shop will add the 21 life preservers which are located on the aircraft to the AFTO Form 46. They will be checked for date of expiration. Expired LPUs will be swapped out through COMBS. There are an additional 59 life preservers located in the Increased Accommodation Units (IAU) and maintained by maintenance personnel. When the aircraft is projected for PDM input, AFE technicians will remove 16 of the 21 life preservers in accordance with AFMAN 11-2KC-10V3 Addenda A, *KC-10 Aircraft Configuration*. Once removed from the aircraft, the dates will be verified serviceable and stored until the aircraft returns. **(T-2)**.

2.20.1.3. 6 ft. hoses: The 6-foot communication hoses will be installed on KC-10 aircraft in sets of four when the use of ACBRN equipment is required. **(T-2)**.

2.20.1.3.1. The hoses will be inspected on an annual cycle using the following criteria: **(T-2)**.

2.20.1.3.1.1. Visually inspect hose and components to ensure all are properly secured and clean.

2.20.1.3.1.2. Check for abrasions, cracks, cuts, holes, rips, or tears. Closely inspect the area around the upper and lower hose clamps and the heat shrink tape that covers the clamps.

2.20.1.3.1.3. Examine the quick disconnect fitting for corrosion, damage, and integrity. Using a push/pull gauge, ensure that it disconnects between 12 and 20 pounds.

2.20.1.3.1.4. Check the communication cord for operability. Use the KC-10 Scott tester (p/n 200255) and a headset to accomplish this check.

2.20.1.3.1.5. Upon completion of the inspection, store each hose in a Ziploc bag, place the four hoses into the kit, attach a completed DD Form 1574 to the kit and update the inspection in the database.

2.21. KC-10 Auxiliary Survival Kit. Lead Command—AMC.

2.21.1. Refer to [paragraph 2.17.2](#) for components and placement.

2.21.2. Units will preposition two PBEs on KC-10s; one in the boom operator's compartment and one in the cockpit. Position and install the PBEs in such a way to allow crewmembers quick access at all times in case of an emergency. **(T-1)**.

2.21.3. The aircraft AFE compartments will be restricted to storing anti-exposure suits, infant cots, O2 masks, six foot hose and cable assemblies, survival vests/backpacks, and an ASK. **(T-1)**.

2.21.4. AFE units with KC-10A aircraft will maintain 358-1390V Series masks in accordance with current commercial maintenance contract and agreements. Per the CMM, the Scott Aviation (now Avox Systems) tester, part number 200255, will be used to test the communication. **(T-1)**.

2.21.5. Cargo barrier nets will not be maintained or inspected by AFE personnel. **(T-1)**. There is currently no technical guidance to make repairs or perform tacking's.

2.21.6. Environmental Curtains: Repairs will be completed in accordance with TO 1C-10(K)A-2-25, *Organizational Maintenance, Equipment Furnishing USAF Series KC-10A Aircraft*, work package 25-26-05. **(T-1)**.

2.22. Aircrew Flight Clothing. Lead Command--AFMC. (T-1).

2.22.1. Requests for new aircrew flight clothing or modification to existing items (applicable to all climates) will be routed to the AF Uniform Office (AFUO). Requestors draft an AF Form 1067 *Modification Proposal*, validated by the first O-6 in the using organization. Form will describe purpose, mission impact, constraints, assumptions, and proposals. Additionally, an AF Form 847 will accompany the submission if a change to AFI 36-2903 is warranted. Submit requests to AFUO. **(T-1)**.

2.22.2. AFMC AFLCMC/WNU will assist the AFUO with testing, integration, and approval/disapproval of requests. Approved items will initially be published on a Safe-to-Fly memorandum. Follow-on guidance will be added to applicable TOs and may be added to AFI 36-2903. Additionally, using MAJCOM/A3 staffs will be kept informed of requests. **(T-1)**.

2.23. Aircrew Self Defense Weapon (GAU-5A). Applicable Commands—ACC, AFGSC, PACAF, USAFE, ANG, AFRC Ejection Seat Aircraft Only.

2.23.1. The OG/CC, with input from the Wing Weapons and Tactics, SERE, and AFE personnel, will make the final decision on whether to pack the Aircrew Self Defense Weapon (GAU-5A) in the ejection survival kit. **(T-2)** The GAU-5A utilizes a significant amount of space in the ejection seat rucksack which necessitates removal of a number of commonly packed components. Removing these components may negatively impact isolated personnel

survivability and recovery. When installed, the GAU-5A component ejection survival kit configuration is one (1) weapon and four (4) 30 round magazines of approved ammunition.

2.23.2. Aircrew Self Defense Weapon training and qualification requirements can be found in DAFMAN 36-2655, *USAF Small Arms and Light Weapons Qualification Programs*, **Chapter 2**.

Chapter 3

CONFIGURATION OF AIRCRAFT INSTALLED AND PRE-POSITIONED AIRCREW FLIGHT EQUIPMENT

3.1. General Aircraft Installed/Pre-positioned AFE Guidance.

3.1.1. In the event installed AFE inspections come due while the aircraft is on alert status or away from home-station, follow guidance per TO 00-20-1.

3.1.2. For LFA, AFE will be loaded and configured per the applicable 11-2MDS Series V3, Addenda A. If no MDS Specific Addenda A is published, units will follow the AFE Aircraft Configuration guidance in this manual, AFE Configuration Tables located on the HAF AFE SharePoint® and applicable MAJCOM or unit supplement to this manual. **(T-1)**. AETC and AFMC units have unique mission requirements and may deviate from this manual per guidance provided by their respective MAJCOM AFE Management Office.

3.1.3. When mission requirements dictate, operations group commanders (or equivalent) are authorized to increase aircraft equipment configurations provided the changes are in compliance with this manual, applicable TOs, and AS authorizations.

3.1.4. Shortages noted by the aircraft commander or designated representative and recorded on AFTO Form 46, (or computer generated equivalent), will be investigated by the AFE section. The investigating activity will request assistance in locating shortages from the station where the loss was discovered. **(T-3)**.

3.1.5. When equipment shortages are discovered which have not been documented on the AFTO Form 46 (or computer generated equivalent), the AFE section will investigate and report to installation report of survey manager. For audit purposes, units will document all investigative actions taken. **(T-3)**.

3.1.6. When AFE owned by other units is discovered during the inventory, notify the owning unit's AFE section, citing type aircraft, tail number, and type and quantity of equipment found. Do not retain AFE; forward it to the owning unit by Issue Priority Designator 02 (IPD-02). Copies of shipping documents will be forwarded to owning organizations. **(T-3)**.

3.1.7. LFA, flight equipment will be pre-positioned to the maximum extent possible at all times to provide mission flexibility, especially when aircraft is away from home-station, unless otherwise specified by 11-2MDS Specific V3, Addenda A. This will reduce excessive handling and damage of AFE. For multi-place/large frame aircraft, units will prepare AFTO Form 46 in duplicate. Units will maintain a file of the original and completed AFTO Forms 46 by aircraft tail number for all assigned aircraft for historical purposes. Purge file copies when a new AFTO Form 46 (or computer generated equivalent) is produced due to equipment information changes. **(T-1)**.

3.1.8. LFA and B-52 mission termination inspections (MTIs) or post-flight inspections will be accomplished on all unit aircraft at home station or deployed locations where AFE personnel are present. AFE will ensure these inspections are conducted after the final mission of the day or upon return to home station, temporary duty (TDY) locations, etc. In cases where aircraft maintenance procedures dictate an AFE aircraft preflight, AFE preflight actions will be the

same as those used during MTI/post-flight inspections. However, units required to perform preflight inspections are not required to do both, preflight and MTI/post-flight. **(T-2)**.

3.1.8.1. Aircrew preflight inspections do not replace MTIs. MTI/post-flight inspections ensure equipment accountability, serviceability, and cleanliness of pre-positioned flight equipment. AFE personnel will emphasize oxygen mask cleanliness and serviceability during MTI/post-flight and routine 30-day mask inspections. In the event that equipment discrepancies are discovered, units will initiate appropriate actions to correct the deficiency prior to the next flight. **(T-2)**.

3.1.8.2. If flight equipment is suspected of misuse, abuse or shortages exist, the AFEO or AFES will notify the applicable commander for corrective actions. The aircrew preflight inspection will suffice in the event aircraft/aircrew are off-station with no qualified AFE support to accomplish MTI/post-flights. Units will use the back of the AFTO Form 46 (or computer generated equivalent) to document these inspections. Units will maintain a copy of the documentation, by tail number, for a minimum of 90 days. **Note:** Aircraft on alert status are exempt from MTIs until after they are removed from alert status. **(T-1)**.

3.1.9. If circumstances arise that require the removal of flight equipment from an aircraft at enroute stations, the individual removing the equipment will annotate the remarks section of the AFTO Form 46 (or computer generated equivalent) with their name, date equipment was removed, reason for removal, and all equipment disposition and destination information. That person will forward all of the information to the owning unit no later than 72 hours from removal. **(T-3)**.

3.1.10. AFE will ensure all equipment inspections remain current for the duration of the scheduled mission when AFE support is not deployed. Where AFE inspection and repack capability exists, ensure aircraft AFE will have a minimum of 60 days remaining on its current repack and inspection when departing home-station on unit deployments (e.g. for tanker task force operations, integrated tanker unit deployments, airlift unit deployment, fighter unit deployment, etc.). Aircraft on "out and back" missions (e.g. channel missions, stage operations, business efforts, etc.) and aircraft transfers, will have a minimum of 30 days remaining on equipment repack and inspection when departing home-station. **(T-2)**. AFE overdue inspection and repack when off station or on alert will follow guidance in T.O. 00-20-1. **(T-1)**.

3.1.11. AFE will investigate equipment if not returned/located within 30 days. In the event of loss, suspected abuse, pilferage, or mishandling of equipment. AFE will notify applicable agencies in accordance with AFI 23-101, *Air Force Materiel Management*, para. 1.2.3.1.1., and initiate a report of survey in accordance with AFMAN 23-220, Reports of Survey for Air Force Property and DoD 7000.14-R, Vol. 12, Ch. 7 *DoD Financial Management Regulation*. **(T-3)**.

3.1.12. Proper corrective actions for off-station losses will include messages by the owning organization to enroute locations describing lost equipment (include serial numbers for accountable items), TDY duration, and route of off-station aircraft. Send an information copy of the message to MAJCOM AFE office. Document all investigative actions taken for audit purposes. **(T-3)**.

3.1.13. AFE will transfer aircraft in accordance with TO 00-20-1 Chapter 8, *Preventive Maintenance Program General Policy Requirements and Procedures*, this manual and applicable 11-2MDS-Series V3; Addenda A. Gaining units will first contact the losing unit if an aircraft is transferred without the appropriate equipment. In the event the gaining and losing unit cannot resolve the discrepancy, the gaining unit will contact its respective MAJCOM for resolution. Aircraft on loan to another unit in excess 30 days will be handled the same as a transfer, unless the gaining unit or 11-2MDS Series V3, Addenda A specifies otherwise. **(T-1)**.

3.1.14. Equipment shipped for aircraft depot retrievals will have sufficient days remaining at the time of shipment to ensure no impact to flight returning home. **(T-1)**.

3.1.15. When aircraft are permanently transferred, inspection records of installed AFE will be mailed or sent electronically to the gaining unit AFE section. **(T-1)**.

3.1.15.1. Units will complete transfer of AFE in AFERMS (losing and gaining unit warehouses) NLT 30 days after aircraft transfer. **(T-1)**.

3.1.16. Due to the lack of AFE expertise at some aircraft Programmed Depot Maintenance (PDM) locations, maintenance and equipment accountability can be provided only by the organization owning the aircraft.

3.1.17. DELETED

3.1.18. When aircraft are input for Unprogrammed Depot Maintenance (UDM), the owning organization will ensure equipment has a minimum of 45 days remaining on repack cycles prior to aircraft departure. **(T-2)**.

3.1.18.1. When life rafts are not installed on aircraft ferry and depot deliveries, use the Survival Vest or Backpack as a means of providing minimum signaling and survival component needs (vests are required when carrying parachutes aboard the aircraft). **(T-1)**.

3.1.18.2. Time change items and munitions installed in equipment going to depot facilities will have a minimum of one-year remaining on service life. When equipment is carried on commercial airlines, remove the following items in accordance with TO 00-20-1: Signal, smoke and illumination, MK-13 or MK-124; Signal kit, personnel distress, A/P 25S-5A; container, waterproof (with matches); and knife, pocket. **(T-2)**.

3.1.18.3. Normally, aircraft are expected to return to the originating organization, but in the event aircraft are not returned to the originator, equipment custodians will initiate appropriate supply action to ensure equipment accountability. Transfer, receipt, and accountability procedures are set forth in AFI 23-101, and AFI 23-111, *Management of Government Property in Possession of the Air Force*. **(T-1)**.

3.1.18.4. For permanent transfer through depot maintenance activity: Sixty days prior to aircraft scheduled release from PDM, the organization losing the aircraft will take appropriate supply actions to ship full complement of equipment, excluding the depot maintenance configuration requirements, to the gaining base and transfer accountability (e.g. Full aircraft configuration is 10 parachutes/kits, and depot configuration is four parachutes/kits. The losing unit will ship six parachutes/kits from the complete set to the gaining unit and retain the difference of four parachutes/kits to install on the aircraft for depot input/output.) **(T-1)**.

- 3.1.18.5. Upon receipt of the transfer documents, the AFE custodian must coordinate with the gaining base supply EMS to ensure the equipment has been received and to take appropriate actions to transfer Custodian Inventory Report accountability. Base supply will take no action to process equipment transfers until the AFE custodian verifies receipt of the equipment. **(T-1)**.
- 3.1.19. Remove flight equipment from aircraft only for recurring inspections or as required for aircraft maintenance (i.e., major/minor ISOs, home-station checks (HSC), programmed depot maintenance (PDM), etc.) or as directed in MDS specific configuration instructions. Units will annotate AFTO Form 781A, *Maintenance Discrepancy and Work Document* and AFTO Form 46 (or computer generated equivalent) when flight equipment is removed from aircraft. **(T-1)**.
- 3.1.20. Establish local procedures to document, control, retrieve, and maintain accountability of all transactions in accordance with AFI 23-101, Para. 5.4.2.7 and AFI 23-111. AF Form 1297 will have a return date entered in applicable block on form. Annotate "Mobility" in the block marked "Return Date" on each AF Form 1297 for individual mobility equipment issued to crew members in accordance with AFMAN 23-122, *Material Management*, Para 5.3.6. Retrieve AFE issued temporarily on AF Form 1297 or equivalent. **(T-1)**.
- 3.1.21. Units will maintain equipment in serviceable storage in "ready for use" and "inspect prior to issue" status with time compliance TOs and modifications completed. **(T-2)**.
- 3.1.22. Units will follow inspection and storage procedures for "stored equipment" established in applicable TOs and publications without deviation; not to exceed 12 months. Use DD Form 1574 to identify equipment in serviceable storage. **(T-2)**.
- 3.1.23. Units will establish procedures to fit or issue AFE based on local mission commitments and time constraints. **(T-3)**.
- 3.1.24. When AFE has been removed or identified as being from transient aircraft, immediately notify the owning organization, citing type of aircraft, tail number, type and quantity of equipment removed, and present location. Mark assets for gaining AFE unit. Do not retain any AFE removed from enroute aircraft. Return equipment to the owning unit using Shipping Priority Designator-02, as a minimum. **(T-3)**.
- 3.1.25. Marking equipment with unit identification and related information helps prevent loss and expedites the return of AFE to the owning organization. Units will record assigned serial numbers and/or use local control numbers on required inspection forms to assist AFE in identifying accountable items. **(T-3)**.
- 3.1.26. During contingencies sanitize AFE aircrew would commonly use in an escape and evasion environment. AFE passenger support items such as multi-place life rafts and passenger LPUs do not require sanitization.
- 3.1.27. AMC units will stencil all multi-person life raft cases, escape slide covers, accessory containers, and passenger life preserver cases with MAJCOM plus the unit designator of the owning unit (e.g., AMC/123 ARS). Stencil AMC-gained ARC equipment with "ANG" or "AFRC," as appropriate, plus unit designator of the owning unit (e.g., ANG/123 ARS). **(T-2)**.
- 3.1.28. Units will remove or obliterate unit identification on AFE prior to turn-in or transfer of serviceable or repairable equipment. **(T-2)**.

3.2. Aircraft Configurations. In addition to guidance below, see specific aircraft configuration tables located on the HAF AFE SharePoint®. Send updates to the tables to your MAJCOM/FOA staff for coordination. MAJCOMs will submit vetted changes to the tables to HAF AFE staff. HAF AFE will update HAF SharePoint®. **(T-1).**

3.2.1. C-21. Configure C-21 aircraft in accordance with applicable 11-2C-21, V3, *C-21 Operations Procedures* and TO 1C-21A-1, *USAF Model, C-21A Aircraft Flight Manual*. AFE will maintain sufficient quantities of life rafts for C-21 aircraft to satisfy contingency requirements based on UTC and to support overwater flights. Non-mobility units will maintain at least one T-9AF or LRU-14-series or AC-9 life raft for contingency purposes. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases. However, units will ensure they do not exceed their total equipment authorizations per applicable AS. **(T-1).**

3.2.2. OSA/EA AFE. Due to the unique mission and limited assets of the OSA/EA operations and other unique missions, each OSA/EA unit will provide their respective MAJCOM with an aircraft AFE configuration table for each MDS assigned and may deviate from the AFE Configuration Tables located on the HAF AFE SharePoint®. **(T-1).**

3.2.3. C-32A Aircraft AFE Configuration. Units will configure C-32A aircraft in accordance with Boeing document Number D706-3400-C-C32A, *C-32A Flight Attendant Manual USAF*. **(T-1).**

3.2.3.1. AFE installed on C-32A aircraft is logistically managed, maintained, inspected, installed and removed by the servicing COMBS/Contract Logistics Support (CLS) provider, with the exception of the SKED, MSK (when required), and 30-day inspection of installed aircrew oxygen masks.

3.2.3.2. The military servicing AFE organization (89 OSS) will logistically manage, maintain, install and remove the SKED and MSK. **(T-2).**

3.2.3.3. The military servicing AFE organization (89 OSS) will perform 30-day inspections on installed aircrew oxygen masks in accordance with [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2).**

3.2.3.4. The military servicing AFE organization (89 OSS) will place the SKED, MSK (if installed) and 30-day inspection of aircraft installed aircrew oxygen masks only on the AFTO Form 46. **(T-2).**

3.2.3.5. The C-32A configuration table is primarily for reference for AFECT use.

3.2.4. C-37A Aircraft Configuration. Units will configure C-37A aircraft in accordance with Gulfstream Operating Manual Chapter 2C: Outfitted Systems, USAF C-37A Aircraft. **(T-1).**

3.2.4.1. AFE installed on C-37A aircraft is logistically managed, maintained, inspected, installed and removed by the servicing COMBS/CLS provider, with the exception of the SKED, PBE, and 30-day inspection of installed aircrew oxygen masks.

3.2.4.2. The military servicing AFE organization will logistically manage, maintain, install and remove the SKED and PBE. **(T-2).**

3.2.4.3. The military servicing AFE organization will perform 30-day inspections on installed aircrew oxygen masks in accordance with [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2)**.

3.2.4.4. The military servicing AFE organization will place the SKED, PBE, and 30-day inspection of aircraft installed oxygen masks only on the AFTO Form 46. **(T-2)**.

3.2.4.5. The C-37A configuration table is primarily for reference for AFECT use.

3.2.5. C-37B Aircraft AFE Configuration. Units will configure C-37B aircraft in accordance with Gulfstream G550 Operating Manual Chapter 2C: Outfitted Systems, USAFC-37B Aircraft. **(T-1)**.

3.2.5.1. AFE installed on C-37B aircraft is logistically managed, maintained, inspected, installed and removed by the servicing COMBS/CLS provider, with the exception of the SKED, PBE, and 30-day inspection of installed aircrew oxygen masks.

3.2.5.2. The military servicing AFE organization will logistically manage, maintain, install and remove the SKED and PBE. **(T-1)**.

3.2.5.3. The military servicing AFE organization will perform 30-day inspections on installed aircrew oxygen masks [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2)**.

3.2.5.4. The military servicing AFE organization will place the SKED, PBE, and 30-day inspection of aircraft installed aircrew oxygen masks only on the AFTO Form 46.

3.2.5.5. The C-37B configuration table is primarily for reference for AFECT use.

3.2.6. C-40B Aircraft AFE Configuration. Units will configure C-40B aircraft in accordance with Boeing document Number D765-40010-1, C-40B Cabin Crew Manual USAF. **(T-1)**.

3.2.6.1. AFE installed on C-40B aircraft is logistically managed, maintained, inspected, installed and removed by the servicing COMBS/CLS provider, with the exception of the SKED and 30-day inspection of installed aircrew oxygen masks. **(T-2)**.

3.2.6.2. The military servicing AFE organization will logistically manage, maintain, install and remove the SKED. **(T-2)**.

3.2.6.3. The military servicing AFE organization will perform 30-day inspections on installed aircrew oxygen masks in accordance with [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2)**.

3.2.6.4. The military servicing AFE organization will place the SKED and 30-day inspection of aircraft installed aircrew oxygen masks only on the AFTO Form 46. **(T-2)**.

3.2.6.5. The C-40B configuration table is primarily for reference for AFECT use.

3.2.7. C-40C Aircraft AFE Configuration. There are two different cabin layouts (AFRC and ANG). Units will configure C-40C aircraft according to the cabin layout in accordance with Boeing document Number D766-40010-1, C-40C Cabin Crew Manual (CCM) USAF. **(T-1)**.

3.2.7.1. AFE installed on C-40C aircraft is logistically managed, maintained, inspected, installed and removed by the servicing COMBS/CLS provider, with the exception of the SKED, MROD-35, LPU-6/P (when required), and 30-day inspection of installed aircrew oxygen masks. **(T-2)**.

3.2.7.2. The military servicing AFE organization will logistically manage, maintain, install and remove the SKED, MROD-35, and LPU-6/P. **(T-2)**.

3.2.7.3. The military servicing AFE organization will perform 30-day inspections on installed aircrew oxygen masks in accordance with [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2)**.

3.2.7.4. The military servicing AFE organization will place the SKED, MROD-35, LPU-6/P and 30-day inspection of aircraft installed aircrew oxygen masks only on the AFTO Form 46. **(T-2)**.

3.2.7.5. The C-40C configuration table is primarily for reference for AFECT use.

3.2.8. VC-25A Aircraft AFE Configuration. Units will configure VC-25 aircraft in accordance with TO 1C-25(V) A-1, Flight Manual USAF Series VC-25A Aircraft. **(T-1)**.

3.2.8.1. AFE installed on VC-25A aircraft is logistically managed, maintained and inspected by the servicing COMBS/CLS provider and Presidential Airlift Group (PAG) Maintenance, with the exception of the Auxiliary Forward and Aft Lobe Kits, SKED, 30-day inspection of installed aircrew oxygen masks, 90 Day inspection of PBE, and 180 day inspection of the EPOS. **(T-2)**.

3.2.8.2. The military servicing AFE organization (89 OSS) will logistically manage, maintain, install and remove the Auxiliary Forward and Aft Lobe Kits and SKED. **(T-2)**.

3.2.8.3. The military servicing AFE organization (89 OSS) will perform 30-day inspections on installed aircrew oxygen masks in accordance with [paragraph 2.5.10.2](#) of this manual. Any discrepancies identified requiring mask repair or replacement will be reported to the servicing COMBS/CLS provider. **(T-2)**.

3.2.8.4. The military servicing AFE organization (89 OSS) will inspect, install and remove EPOS units. Expiring EPOS units will be obtained from the servicing COMBS/CLS provider. **(T-2)**.

3.2.8.5. The military servicing AFE organization (89 OSS) will install and remove the Adult/Child LPUs and LPU-6/P Infant Cots and route them for periodic inspection to the servicing COMBS/CLS provider. **(T-2)**.

3.2.8.6. The military servicing AFE organization (89 OSS) will coordinate with the PAG Maintenance personnel to exchange PBE, EROS, and Smoke Masks due for periodic overall inspection, replacement, or overhaul as agreed upon in a local MOA. **(T-2)**.

3.2.8.7. The military servicing AFE organization (89 OSS) will place all AFE (COMBS/CLS supported or military supported), with appropriate inspection and expiration dates on the AFTO Form 46 for VC-25A aircraft. AFE may omit items on the AFTO Form 46 if the item is tracked by PAG Maintenance. **(T-2)**.

3.2.8.8. The VC-25A configuration table is primarily for reference for AFECT use.

3.2.9. UH-1N Aircraft Configuration: Lead Command-AFGSC

3.2.9.1. AFGSC units will pre-position their survival kit on board the UH-1N for all missions year round. **(T-1)**.

3.2.9.2. AFMC (413 FTS), and PACAF (459 AS) will define their aircraft configuration and forward a copy to AF/A3TF. **(T-1)**.

3.2.9.3. AFE will ensure UH-1N aircraft on alert have all AFE correctly configured and ready for immediate contingency response. **(T-1)**.

3.2.10. C-17A. Units will configure aircraft in accordance with AFMAN 11-2C-17, V3, Addenda A, *C-17 Configuration and Mission Planning* and T.O. 1C-17A-1, *Flight Manual, USAF Series, C-17A Aircraft*. AFE is the only equipment authorized for storage in the C-17 equipment locker. **(T-1)**.

MARK D. KELLY, Lt Gen, USAF
DCS, Operations, Plans and Requirements

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

DAFPD 10-9, *Lead Command Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities*, 25 May 2021

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

DAFI 23-201, *Fuels Management*, 23 August 2023

DAFMAN 36-2655, *USAF Small Arms and Light Weapons Qualification Programs*, 17 April 2020

DAFMAN 48-123, *Medical Examinations and Standards*, 8 December 2020

DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022

AFPD 11-3, *Aircrew Flight Equipment*, 15 January 2019

AFI 11-235, *Specialized Fueling Operations*, 31 May 2019

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 23-101, *Material Management Policy*, 22 October 2020

AFI 25-101, *War Reserve Materiel (WRM)*, 27 August 2019

AFI 36-2654, *Combat Arms Program*, 16 April 2020

AFI 33-322, *Records Management and Information Governance Program*, 28 July 2021

AFI 63-101/20-101, *Integrated Life Cycle Management*, 30 June 2020

AFJI 13-210, *Joint Airdrop Inspection Records, Malfunction Investigations, and Activity Reporting*, 23 June 2009

AFMAN 11-202, V3, *General Flight Rules*, 10 January 2022

AFMAN 11-2C-17 V3, Addenda A, *C-17 Configuration and Mission Planning*, 8 August 2018

AFMAN 11-2C-21 V3, *C-21 Operations Procedures*, 6 June 2019

AFMAN 11-2KC-10 V3, Addenda A, *KC-10 Aircraft Configuration*, 08 April 2019

AFMAN 11-301, V1, *Aircrew Flight Equipment (AFE)*, 31 May 2023

AFMAN 23-122, *Material Management*, 27 October 2020

AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments*, 9 October 2020

AFMCI 63-1201, *Integrated Life Cycle Systems Engineering and Technical Management*, 2 December 2022

AMCI 13-520-S, (U) *Mobility Nuclear Operations*, 1 August 2023

AS 450, *Aircrew Flight Equipment*, 20 December 2018

CNAF 3710.7, *NATOPS General Flight and Operating Instructions Manual*

DoD 7000.14-R, Vol. 12, Ch. 7, *DoD Financial Management Regulation*, various volumes, various dates

FAA AC 120-42B, *Extended Operations*, 10 June 2008

FAA AC135-42, *Extended Operations and Operations in the North Polar Area*

FAR 135.98, *Operations in the North Polar Area*, 15 February 2008

FAR Section 121.337, *Protective Breathing Equipment*, 26 August 1996

TC 18-11, *Special Forces Military Free-Fall and Double Static Line Operations*, 28 April 2020

TC 3-21.220, *Static Parachuting Techniques and Training*, 24 October 2018

TSO C99, *Protective Breathing Equipment*, 5 June 2008 TSO-C116, *Crewmember Protective Breathing Equipment*, 30 July 2009

TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies and Procedures*, 26 September 2022

TO 00-25-06-2-1, *Intermediate Maintenance 412A Survival/Life Support System Equipment*, 9 February 2017

TO 00-25-107, *Maintenance Assistance*, 15 August 2022

TO 12S10-2AVS9-2, *Maintenance Manual, Intermediate with Illustrated Parts Breakdown, Image Intensifier Set, Night Vision, Type AN/AVS-9 (V)*, 18 May 2023

TO 14-1-1, *USAF Aircrew Flight Equipment Clothing and Equipment*, 15 August 2023

TO 14D3-11-1, *Operation, Inspection, Maintenance, and Packing Instructions for Emergency Personnel Recovery Parachute (Chest, Back, Seat Style, and Torso Harness)*, 21 February 2023

TO 14P3-1-112, *Maintenance Instructions Nomex® Flight Gear, Coveralls, Gloves, Jackets*, 9 June 2023

TO 14P3-1-151, *Aircrew Eye Respiratory Protection (AERP) Equipment*, 8 June 2023

TO 14P3-12-1, *Use, Fitting, Installation and Repair. Inflatable Lumbar Support Pad Type MXU22/P*, 26 April 2021

TO 14P3-4-151, *Operation and Maintenance Instructions with Illustrated Parts Breakdown HGU55/P Flyer's Helmet*, 7 August 2023

TO 14P3-5-111, *Aviation-Crew Systems, Aircrew Personal Protective Equipment*, 25 August 2023

TO 14P3-9-21, *Operation and Maintenance Instructions with Illustrated Parts Breakdown Goggles, Flyers, Flash Blindness Type EEU-2/P and EEU-2A/P*, 31 December 2022

TO 14S-1-102-41, *Operators, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List – Low Profile Flotation Collar (LPFC) LPU-40P, Survival Egress Air (S.E.A.)*, 21 September 2019

TO 14S-1-131, *Operation and Maintenance Instructions – Survival Vest Assembly - SRU-21P, Airsave, Aircrew Survival Armor Recovery Vest, Insert, and Packets (SARVIP), and Load Bearing Vest (LBV)*, 3 June 2023

TO 14S1-3-51, *Operation and Maintenance Instructions for Survival Kit Components and Survival Kit Container Assembly MD-1, ML-3, ML-4, SRU 16/P, Parachute Spacer Kit (PSK) A-16 Sled, Global Survival Kit*, 19 April 2023

TO 15X5-2-4-1, *Operation and Maintenance Instructions Mask, Passenger Type and Emergency Passenger Oxygen System (EPOS), 289-601AF Kit*, 15 September 2021

TO 1C-10(K)A-2-25, *Organizational Maintenance, Equipment Furnishing USAF Series KC-10A Aircraft*, 1 January 2021

TO 1C-17A-1, *Flight Manual, USAF Series, C-17A Aircraft*, 1 May 2023

TO 1C-21A-1, *USAF Model, C-21A Aircraft Flight Manual*, 18 August 2023

TO 1C-25(V) A-1, *Flight Manual USAF Series VC-25A Aircraft*, 15 July 2022

TO 31R2-2PRQ7-1, *Radio Set AN/PRQ-7*, 15 March 2023

TO 31R2-2PRQ7-21, *Quick Reference Guide -- AN-PRQ-7 and AN-PRQ-7A, Radio Set*, 19 October 2017

Boeing document Number D706-3400-C-C32A, *C-32A Flight Attendant Manual USAF*

Boeing document Number D765-40010-1, *C-40B Cabin Crew Manual USAF Boeing document Number D766-40010-1, C-40C Cabin Crew Manual USAF*

Gulfstream G550 Operating Manual Chapter 2C: *Outfitted Systems, USAF C-37B Aircraft*

Gulfstream Operating Manual Chapter 2C: *Outfitted Systems, USAF C-37A Aircraft*

Prescribed Forms

AF Form 9, *Request for Purchase*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1067, *Modification Proposal*

AF Form 1297, *Temporary Issue Receipt*

AFTO Form 22, *Technical Manual Change and Recommendation and Reply*

AFTO Form 46, *Prepositioned Aircrew Flight Equipment*

AFTO Form 255, *Notice Certification Void When Seal is Broken*

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

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

DD Form 1149, *Requisition and Invoice Shipping Document*

DD Form 1574, *Serviceable Tag, Materiel*

Abbreviations and Acronyms

ABFDS—Aerial Bulk Fuel Delivery System

ACBRN—Aircrew Chemical, Biological, Radiological Nuclear

ACCA—Aircrew Contamination Control Area

ACCS—Aircrew Contamination Control Station
ACC—Air Combat Command
AECM—Aeromedical Evacuation Crewmember
AETC—Air Education Training Command
AERP—Aircrew Eye/Respiratory Protection
AF—Air Force
AFI—Air Force Instruction
AFE—Aircrew Flight Equipment
AFECT—AFE Continuation Training
AFEO—Aircrew Flight Equipment Officer
AFERMS—Aircrew Flight Equipment Records Management System
AFES—Aircrew Flight Equipment Superintendent
AFGSC—Air Force Global Strike Command **AFI**—Air Force Instruction
AFLCMC—Air Force Life Cycle Management Center
AFMAN—Air Force Manual
AFMC—Air Force Materiel Command
AFPD—Air Force Policy Directive
AFRC—Air Force Reserve Command
AFSC—Air Force Specialty Code
AFSOC—Air Force Special Operations Command
AFUO—AF Uniform Office
ALEP—Aircrew Laser Eye Protection
AMC—Air Mobility Command
ANG—Air National Guard
ARC—Air Reserve Component
AS—Allowance Standard
BOI—Basis of Issue
CAF—Combat Air Force
CBRN—Chemical, Biological, Radiological, Nuclear
COMSEC—Communications Security
COTS/NDI—Commercial-Off-The-Shelf/Non-Developmental Item
COTS—Commercial-Off-The-Shelf

CSEL—Combat Survivor Evader Locator
DAFPD—Department of the Air Force Policy Directive
DPAS—Defense Property Accountability System
DSN—Defense Switched Network
DU—Display Units
EPOS—Emergency Passenger Oxygen System
FARP—Forward Area Refueling Point
HHR—Hand Held Radio
JHMCS—Helmet Mounted Cuing System
JSAM—Joint Service Aircrew Mask
JSETS—Joint SARSAT Electronics Tracking System
LFA—Large Frame Aircraft
LOGDET—Logistics Detail
MAF—Mobility Air Force
MDS—Mission Design Series
MASOP—Maintenance Activity Special Operations Personnel
MFM—MAJCOM Functional Manager
MTI—Mission Termination Inspections
NVD—Night Vision Device
OPLAN—Operations Plan
OSA/EA—Operational Support Aircraft/Executive Airlift
OSS&E—Operational Safety, Suitability, & Effectiveness
PACAF—Pacific Air Forces
PBE—Protective Breathing Equipment
PBG—Pressure Breathing for G
PCS—Permanent Change of Station
PLZT—Polarized Lead-Lanthanum-Zirconate-Titanate
PSGC—Primary Survival Gear Carrier
SCWG—Survival Component Working Group
SEA—Survival Egress Air
SERE—Survival, Evasion, Resistance, Escape
SKED—Survival Kit Electronic Device

Office Symbols

ACC/A3TO—Air Combat Command, Director of Operations, Training Division, Operations Support Branch

ACC/TRSS/ATD—Air Combat Command, Training Support Squadron, Detachment

9 AF/SE—Air Force Chief of Safety

AF/A3S—Air Force Specialized Air and Ground Operations Division

AF/A3T—Air Force Deputy Chief of Staff, Operations, Director of Training and Readiness

AF/A3TH—Air Force Deputy Chief of Staff, Operations, Director of Training and Readiness, Aircrew Performance Division

AFCAIG/CPFH—Air Force Cost Analysis Improvement Group/Cost Per Flying Hour

AFCEC/CXR—Air Force Civil Engineer Center, Emergency Management Division

AFGSC/A3OL—Air Force Global Strike Command, Director of Operations, Aircrew Performance Branch

AFMC/A4F—Air Force Materiel Command, Director of Logistics, Product Support Division

AFMC/A3V—Air Force Materiel Command, Director of Air, Space, and Cyberspace, Flight Operations & Standardization and Evaluation Division

AFSOC/A3OZ—Air Force Special Operations Command, Operations Division, Aircrew Performance Branch

AFMC/SE—Air Force Materiel Command, Director of Safety

AFRC/A3RF—Air Force Reserve Command, Director of Operations, Resource and Requirements Division, Aircrew Flight Equipment Branch

AFSEC/SEF—Air Force Safety Center, Aviation Safety Division

AFMRA/SGP—Air Force Medical Readiness Agency, Chief of Aerospace Medicine

AFLCMC/WNU—Air Force Life Cycle Management Center, Human Systems Division

AMC/A3TL—Air Force Mobility Command, Director of Operations, Aircrew Tactics & Training Division, Aircrew Flight Equipment

DAF/SG—Department of the Air Force, Surgeon General

SAF/AQP—Secretary of the Air Force, Acquisitions, Director of Global Power
SAF/IG—Secretary of the Air Force, Inspector General

Terms

412A System—AFE work unit code manual

Aircrew Contamination Control Area (ACCA)/Aircrew Contamination Control Station (ACCS)—Utilized to decontaminate/process aircrew out of chemically (ACCA) and radiologically (ACCS) contaminated environments.

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.

Aircraft Installed AFE—Any type of AFE that is an integrated part of the aircraft such as the ACES II Parachute, ACES II Survival Kit and multi-place life rafts loaded in aircraft wing wells.

Aircrew Flight Equipment (AFE)—AFE encompasses all equipment and personnel formerly known as aircrew life support, survival equipment, and is part of the 412A System (TO 00-25-06-2-1), or as designated by NGB/A3OS.

Aircrew Eye/Respiratory Protection (AERP)/Joint Service Aircrew Mask (JSAM) Series Equipment—AERP/JSAM 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.

Combat Camera—Specially-trained expeditionary forces from Service-designated units capable of providing high-quality directed visual information during military operations.

D-1 Bag—One complete ACBRN Ensemble carried by aircrew when deploying to CBRN threat environment.

D-Bags—Full complement of ACBRN equipment BOI. Includes the contents of the D-1 bag, plus any remaining BOI items.

Large Frame Aircraft (LFA)—Any aircraft operating with multiple aircrew positions. These aircraft are typically used for airlift (passenger & cargo), aerial delivery, aerial refueling, airborne warning & control, aerial reconnaissance, and long-range strategic bombing (B-52 only). Some examples of LFAs would include but not be limited to C-5, C-17, C-130, C-21, E-3, MC-12, KC10, KC-135, RC-135, RC-26 etc. Aircraft types not typically associated with LFAs would be those more closely associated with the Fighter and RWA categories.

LL01—, AFE Familiarization—The event will familiarize aircrew members with local AFE policies and procedures to include equipment issue, use, local aircraft and equipment configurations (includes survival components), inspection and fit-check cycles, pre-flight, and post-flight requirements.

LL06—, Aircrew Flight Equipment 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.

Logistics Detail (LOGDET)—The LOGDET defines standard passenger and equipment movement requirements for each UTC.

Overwater Flight—Any flight taking off or landing over water, exceeding power-off glide or auto-rotational distance from land.

Pre-positioned AFE—Any type of AFE that is loaded on or in an aircraft but is not integrated into the aircraft or it's subsystems such as quick don oxygen masks, back style parachutes, survival vest, aircrew body armor, etc.

Rotary Wing Aircraft (RWA)—Any aircraft which is partly or wholly sustained in the air by lift generated by wings (often called rotor blades) that revolve around a vertical axis. RWAs are most closely associated with helicopters and would include aircraft such as the CV-22, HH-60, UH-1, etc.

Theater (DoD)—The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility.

Unit Type Code (UTC)—A five-character, alphanumeric code that uniquely identifies each type unit of the Armed Forces.