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SECRETARY OF THE AIR FORCE**

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This instruction establishes ALS objectives, responsibilities, administrative, deployment and contingency operations, training, clothing, and aircrew life support equipment requirements. Major Commands (MAJ-COM) and the Air National Guard (ANG) must comply with the requirements for ALS and survival equipment in this publication and applicable Air Force technical orders. This publication applies to all MAJCOMs and the ANG when published in the ANGIND 2. Life Support Officers (LSO) or MAJCOM Functional Managers (FM) for each MAJCOM or Numbered Air Force (NAF), as well as field operating agencies (FOA) must send one copy of MAJCOM supplements to this publication to HQ USAF/XOOP, 1480 Air Force Pentagon, Washington DC 20330-1480. Send comments and suggested improvements to this instruction on an AF Form 847, **Recommendation for Change of Publication**, through appropriate

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(ACC) AFI 11-301V1, 19 July 2002, is supplemented as follows. This supplement implements AFPD 11-3, *Life Support*, and amplifies policies and procedures contained in AFI 11-301, AFI 36-2201, and other USAF life support directives. This supplement establishes and defines the Life Support equipment, technician and aircrew continuation training programs for assigned/attached ACC flying units, personnel assigned or attached to ACC for flying, and other aircrew members flying ACC aircraft. It clarifies responsibilities, standardizes equipment control procedures, defines general equipment maintenance/inspection requirements, establishes security procedures, and prescribes minimum equipment requirements for ACC Life Support sections and aircrew. Unless otherwise noted, this supplement is applicable to Air National Guard (ANG) units when published in the ANGIND2. In addition, this supplement applies to ACC-gained Air Force Reserve Command (AFRC) when published in the AFRCIND2. Ensure that all records created as a result of processes prescribed in this supplement are maintained in accordance with AFPD 37-1, *Air Force Information Management*; and AFMAN 37-123, *Management of Records*; and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://webrims.amc.af.mil/>. Contact supporting records managers as required. Send comments and suggested improvements to this supplement, through channels, on AF IMT 847, **Recommendation for Change of Publication**, to HQ ACC/DOTO, Suite 101, 204 Dodd Blvd, Langley AFB VA 23665-2717, as directed by AFI 11-215. **NOTE:** Due to the unique mission at Beale AFB CA, a copy of AFI 11-301V1_BEALE AFB SUP 1 must be forwarded to HQ ACC/DOTO for approval prior to issuance (see paragraph **2.16.13. (Added)**). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

(SEYMOUR JOHNSON) This supplement implements AFPD 11-3, *Life Support*, and amplifies policies and procedures contained in AFI 11-301V1_ACC Sup 1, AFI 36-2201, and other USAF life support directives. This supplement establishes and defines the Life Support equipment, technician and aircrew continuation training programs for assigned/attached 4 Operations Group (OG) flying units, personnel assigned or attached to 4 OG for flying, and other aircrew members flying 4 OG aircraft. It clarifies responsibilities, standardizes equipment control procedures, defines general equipment maintenance/inspection requirements, establishes security procedures, and prescribes minimum equipment requirements for 4 OG Life Support sections and aircrew. Maintain and dispose of records created as a result of prescribed processes in accordance with the approved Air Force retention and disposition schedule which may be found on-line at <https://afrims.amc.af.mil/>. Contact supporting records managers for assistance. Send comments and suggested improvements to this supplement, through channels, on AF IMT 847, **Recommendation for Change of Publication**, to 4 OSS/OSOL, 1095 Vermont Garrison Ave, Seymour Johnson AFB NC 27531-2520, as directed by AFI 11-215. **NOTE:** The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the 4 OG.

SUMMARY OF CHANGES

This revision is a compilation and consolidation of information formerly contained in previous AFI 11-301, dated 1 June 98, MAJCOM 11-301 Instructions, as well as supplements thereto. Among the changes too numerous to mention in this section, this revision formally identifies the requirement for an ALS Functional or Career Field Manager in the rank of Chief Master Sergeant on the Air Staff (paragraph **2.2.1.2.**), changes training requirements for ALS personnel (**Table 4.1.**) changes ALS Continuation Training frequencies and AFORMS event identifiers (**Table 5.1.**), and expands guidance on minimum aircrew protective clothing requirements (**Chapter 6**).

(ACC) This document is substantially revised and must be completely reviewed.

(ACC) It incorporates numerous messages and policy changes unique to the ACC Life Support program. Among the changes too numerous to mention in this section, this revision formally relieves the requirement of the 18 month equipment re-certification process (paragraph **2.13.8. (Added)**) and the requirement to maintain quality assurance trend analysis (**Attachment 4 (Added)**). It aligns ALSE fitting requirements under Aircrew member responsibilities (paragraph **2.15.8. (Added)**). It authorizes units to store support agency pyrotechnic devices as required (paragraph **3.11.2.**). It adds LSS requirements for routing, processing, and reviewing the ACC IMT 64, **Request for Placement on the Special Certification Roster** (paragraph **4.2.6.2. (Added)**).

(SEYMOUR JOHNSON) This document is substantially revised and must be completely reviewed.

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Chapter 1

OVERVIEW

1.1. Mission. Provide USAF aircrew safe and effective ALS systems and programs. To protect and sustain human life during flight operations. Prepares aircrew and passengers to survive, affect their rescue, and return to duty if forced to abandon their aircraft during an emergency.

1.2. Program Objectives:

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

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

1.2.3. Identify requirements for modernization and new equipment by analyzing: customer-validated operational requirements, operational deficiencies, USAF suggestions and recommendations, Air Force technical order (T.O.) improvement reports, aircraft mishap report recommendations, and joint developmental programs from other DOD agencies.

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

1.2.5. Train and qualify ALS personnel (Air Force Specialty Code [AFSC] 1T1X1) to maintain ALSE in optimum condition and to conduct aircrew life support continuation training (ALSCT).

1.3. Supplements and Waivers:

1.3.1. MAJCOM and field operating agency (FOA) functional managers must forward a copy of their supplement to this publication to HQ USAF/XOOP, 1480 Air Force Pentagon, Washington DC 20330-1480.

1.3.2. MAJCOMs, direct report units (DRU), wings, FOAs may request waivers as well as deviations to requirements of this instruction when unique or unusual circumstances affect the unit's ability to implement stated policy or procedure. MAJCOMs and DRUs (e.g., DOT/XOT or higher) will forward the request by letter or message to HQ USAF/XOOP explaining why a waiver is needed and describing the specific requirement that is creating the problem. Wings and FOAs will process waivers through their respective MAJCOM authority for submission to HQ USAF/XOOP. Wings (Operations Group Commander or higher) and FOAs (Operations Group Commander or equivalent) may request waivers to MAJCOM supplements by submitting their waiver request to the specific MAJCOM. Air Force Reserve Command (AFRC) units will forward waiver requests through NAF channels to HQ AFRC.

1.3.2. (ACC) Forward requests by letter or message through the operations group commander to HQ ACC/DOT describing the specific requirement that is creating the problem and explaining why a waiver is required. Not applicable to AFRC units.

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

1.3.3. MAJCOMs will supplement this instruction for their unique programs within 12 months of the publication date of this instruction.

1.3.3.1. **(Added-ACC)** ACC units will further supplement this instruction within 12 months of the publication date of the ACC supplement thereto. Not applicable to AFRC units. When necessary for the ANG.

1.3.3.2. **(Added-ACC)** HQ ACC/DOTO is the office is responsible for establishing policies and providing management oversight for the command ALS program as outlined in AFPD 11-3 and the basic AFI 11-301. The aircrew life support program is a staff function of the Directorate of Aerospace Operations (HQ ACC/DO), Flight Operations Division (HQ ACC/DOT). The command ALS program manager (CMSgt/AFSC 1T100) will be assigned to HQ ACC/DOT. A CMSgt, AFSC 1T100, will also be assigned to the Directorate of Requirements (HQ ACC/DR), Systems Support Division (HQ ACC/DRS); and the ACC Inspector General Squadron (ACC IGS).

1.3.4. **Communications:**

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

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

1.3.4.3. Do not request waivers by telephone. Use letter or message format to request waivers depending on urgency.

1.3.4.4. Keep messages to a minimum. When sending messages requiring an action by higher headquarters (HHQ), provide information copies to all command agencies involved. Units will ensure equivalent local coordination on messages prior to transmission when responding to coordinated messages.

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

1.3.4.6. E-mail Procedures. Units are encouraged to use E-mail to facilitate correspondence. Use E-mail when an interim response is needed or to answer a HHQs tasking not requiring a formal response.

1.3.4.7. Units will periodically check their respective MAJCOM web page to ensure receipt of all applicable information.

Chapter 2

RESPONSIBILITIES

2.1. Shared Responsibilities. MAJCOMs and FOA director of operations (DO), ANG/DOOS, and comparable positions in the Numbered Air Forces (NAF), centers, and subordinate units share responsibilities for execution of ALS policy.

2.2. HQ USAF/XOO (Director of Operations & Training) through HQ USAF/XOOP (Personnel Recovery Division):

2.2.1. Is responsible for the Air Force ALS program.

2.2.1.1. The Chief, Personnel Recovery Division (HQ USAF/XOOP) oversees the entire ALS program.

2.2.1.2. An active duty ALS functional manager (IT100) will be assigned to manage ALS matters and serve as the Air Force career field manager (AFCFM) for AFSC IT1X1.

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

2.2.3. Coordinates with other Air Staff offices that affect ALS programs; aircrew chemical defense equipment and procedures; research and development (R&D) of ALSE; logistics; egress; survival equipment; and Nuclear, Biological, and Chemical (NBC) defense doctrine, policy, training; and tactics, techniques, and procedures.

2.2.4. Hosts an annual Air Staff working group with representatives involved with Aircrew Protection responsibilities. Membership should include representatives from HQ USAF/XOOP (Personnel Recovery Division), HQ USAF/ILMM (Egress and Survival Equipment Career Field Manager), AFMOA/SGOA (Aerospace Medicine), SAF/AQPC (Life Support PEM), HQ USAF/ILEXR (CE Readiness), HQ USAF/ILSP (Logistics), AFSC (Safety), and aircrew representation. The intent of the working group is to build a network of contacts, keep lines of communication open, and resolve Aircrew Protection issues that are cross functional in nature. Similar working group meetings will be held annually at MAJCOM and ANG level.

2.2.5. Advises on ALS issues.

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

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

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

2.2.9. Convenes the biennial World-Wide Life Support Workshop (WWLSW).

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

2.2.11. Manages the USAF Outstanding ALS: Airman, Noncommissioned Officer (NCO), Senior NCO, Officer, and Civilian of the Year Awards Program, IAW AFI 36-2807, *Headquarters United States Air Force Deputy Chief of Staff Air and Space Operations Annual Awards Program*.

2.2.12. Monitors:

2.2.12.1. MAJCOM, ANG, and FOA ALS programs.

2.2.12.2. Command-level technical concerns affecting ALS systems and subsystems, manpower resources, and equipment.

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

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

2.2.12.5. Development of Operational Requirements Documents (ORD) IAW the Paperwork Reduction Act of 1974, Amended in 1996, and development of Mission Needs Statements (MNS).

2.2.13. Reviews aircraft mishaps in which aircrews have used ALSE or systems.

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

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

2.3. The Air Force Aircrew Protection Executive Committee (APEC):

2.3.1. The APEC is an oversight and steering group body that provides direction and advocacy for all ALS programs. The purpose of the APEC is to prioritize and provide Air Force direction to resource sponsors and the Single Manager for ALS systems research, development, testing, evaluation, acquisition, and sustainment (311 HSW/YA).

2.3.2. The objective is to advocate Air Force sponsored ALS systems research and development funding priorities, equipment procurement funding priorities, and ALS systems related Integrated Process Team (IPT) recommendations with user needs.

2.3.3. The APEC will meet annually to receive briefings on ALS systems programs and plans, discuss issues, and establish a strategic plan for future development and acquisition. In addition, the APEC will prioritize sustainment activities related to currently fielded equipment. APEC membership will include representation from all MAJCOMs, the ANG, and the Air Staff.

2.3.4. HQ USAF/XOOP and 311 HSW/YA will co-chair the APEC. The host (311 HSW/YA) will arrange for a suitable conference site, announce the meeting, and via message provide an agenda and specific details related to the meeting.

2.3.4.1. The APEC will operate under a charter approved by HQ USAF/XOO.

2.4. HQ USAF/SE (Chief of Safety). Through the Air Force Safety Center, Life Sciences Branch, this office:

2.4.1. Provides statistical data, analysis, and recommendations on all mishaps or incidents involving ALSE or training.

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

- 2.4.2. Monitors the Air Force ALS Program to ensure aircrews maintain safety standards.
- 2.4.3. Provides technical assistance on request to aircraft mishap investigation boards.
- 2.4.4. Serves on the APEC.
- 2.4.5. Attends the WWLSW and MAJCOM meetings. Briefs attendees on aircrew use of ALSE, their performance during aircraft mishaps, and general safety concerns.
- 2.4.6. Attends Air Force, joint agency, and industry meetings, boards, task forces, and conferences that deal with ALSE, as required.
- 2.4.7. Provides a representative to the Air Staff Aircrew Protection Working Group (APWG).

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

- 2.5.1. Monitors the development and acquisition of new ALSE.
- 2.5.2. Assigns an officer to serve on the APEC and ensures the ALS Program Management Directive contains the research, development, and acquisition strategies and priorities of the APEC.
- 2.5.3. Monitors ALS System Development and Demonstration (SDD) programs aimed to satisfy validated user requirements.
- 2.5.4. Attends the WWLSW and briefs attendees on ALS research, development, and acquisition issues.
- 2.5.5. Provides a representative to the Air Staff and APWG.

2.6. HQ USAF/SG (Surgeon General). Through the Air Force Medical Operations Agency (AFMOA/SGOA), this office:

- 2.6.1. Manages all aerospace physiological training and support programs according to AFI 11-403, *Air Force Aerospace Physiological Training Program*.
- 2.6.2. Oversees the medical aspects of the ALS program.
- 2.6.3. Sets guidelines for infection control.
- 2.6.4. Provides representation to the APEC and APWG.

2.7. Air Force Materiel Command (AFMC). Through the 311th Human Systems Wing (311 HSW/YA), this office:

- 2.7.1. Is the single point authority (i.e., Single Manager) for ALS systems, managing specific ALSE from its development, engineering, and sustainment to final disposition.
 - 2.7.1.1. Maintains Operational Safety, Suitability, and Effectiveness (OSS&E) compliance of all fielded and future ALSE IAW AFI 63-1201, *Assurance of Operational Safety, Suitability, & Effectiveness*.
 - 2.7.1.2. Manages and maintains a Master Configuration List (MCL) for all man-side and aircraft ALS related systems. The MCL will provide a list of all authorized subsystems and equipment in the Air Force ALS inventory.

- 2.7.1.3. Maintains and updates Air Force T.O. 00-25-06-2-1, *Intermediate Maintenance, 412A Survival/Life Support System Equipment Work Unit Code Manual*, when new equipment is fielded. If new equipment items are command specific, then the lead command will sponsor the update.
- 2.7.2. Ensures fielded ALS systems and subsystems are integrated with newly developed technologies, systems, and subsystems. Conducts product engineering evaluations and analysis with the purpose of providing users safe-to-fly certifications and recommendations.
- 2.7.3. Monitors and participates in the acquisition of ALS systems and subsystems for COTS aircraft converted for Air Force missions.
- 2.7.4. Monitors and establishes procedures for the acquisition of ALSE through the COTS/NDI programs. Monitors and tracks the procurement, approval, and capability of COTS/NDI systems used to meet Air Force requirements documented in formal requirement documents to include requirement letters.
- 2.7.5. Conducts an ALS science and technology program to ensure technologies will exist to satisfy future Air Force requirements.
- 2.7.6. Works with and monitors other service's ALSE acquisition and developments to avoid duplication of effort in the science and technology program.
- 2.7.7. Develops a technology transfer plan to move exploratory and advanced development ALS technologies into full-scale development.
- 2.7.8. Develops procedures to control and coordinate the configuration of ALS subsystems and equipment among MAJCOMs and the ANG.
- 2.7.9. Encourages operational input to ALS programs by ensuring MAJCOM and ANG representatives attend key acquisition events.
- 2.7.10. Develops, publishes, and maintains an Aircrew Protection Strategic Plan (APSP) outlining ALS systems acquisition and sustainment strategies. The APSP will use APEC directed priorities as a basis for the strategic plan.
- 2.7.11. Employs a Human Systems Support Manager (SSM) to provide centralized logistics support of the ALS systems.
- 2.7.12. Serves as the approval authority for aircrew and aircraft-installed ALSE through T.O. publication.
- 2.7.13. Establishes procedures for intra-command coordination and configuration control of ALS subsystems and equipment.
- 2.7.14. Assists MAJCOMs in determining training requirements for system changes.
- 2.7.15. Assists MAJCOMs and ANG in developing initial production funding plans for each ALS endeavor.
- 2.7.16. Provides technical assistance and laboratory analysis to aircraft mishap safety investigation boards as requested and to the Joint Task Force-Full Accounting (JTF-FA) and Central Identification Laboratory-Hawaii, assisting in determining the status of DOD warfighters missing in action.

2.7.17. Monitors the shelf-life program IAW AF Manual (AFMAN) 23-110, Volume 7, Part 3, *The AF Shelf-Life Program*.

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

2.8. Air Force Operational Test and Evaluation Center:

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

2.8.2. Advises MAJCOMs and ANG on operational test issues.

2.9. MAJCOM and ANG. Assign a full time ALS MAJCOM Functional Manager to manage the ALS program (MAJCOM FM may delegate their responsibilities to NAF points of contact [POC] or appoint weapon system team chiefs to handle specific issues).

2.9.1. Provides representation to the APEC. Provides the status of their ALS programs to the APEC.

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

2.9.2.1. Establishes and publishes Technical Order options list for their respective commands. Exceptions to gaining MAJCOM options will be published by Air Reserve Component (ARC) ALS managers.

2.9.3. Reviews aircraft mishaps and incident reports (command specific) involving ALSE and resulting recommendations.

2.9.4. Through the Allowance Standard (AS) manager; annually reviews and validates AS 016, *Special Purpose Clothing and Personal Equipment*, and AS 450, *Personal/Life Support Equipment*, for accuracy and adequacy.

2.9.5. Identifies operational requirements and prepares MNSs and ORDs, as required. Coordinates with appropriate maintenance activities (i.e., Survival equipment and Egress) prior to submission.

2.9.5.1. Maintains integrity of the OSS&E baseline for all ALSE IAW AFI 63-1201 by ensuring newly developed (COTS/NDI) ALSE and modifications to existing ALSE pursued by units for Air Force aircraft as well as for aircrew use are evaluated and approved by the ALSE Single Manager, 311 HSW/YA.

2.9.5.2. **(Added-ACC)** Monitor aircraft conversion, Time Compliance Technical Order (TCTO), and modification programs to ensure the integration of aircrew life support equipment with the aircrew and recovery systems.

2.9.6. Participates in periodic research, development, test and evaluation (RDT&E) program reviews as requested by AFMC.

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

2.9.8. Lead MAJCOMs will publish weapon system specific policy for configuration requirements addressing aircrew and aircraft-installed ALSE IAW AFPD 10-9, *Lead Operating Command Weapon Systems Management*.

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

2.9.10. Attends Air Force, joint agency, and industry meetings, groups, boards, task forces, committees, and conferences dealing with developing, modifying, or researching ALSE.

2.9.10. **(ACC)** Establish command operational requirements and provide recommendations to the HQ ACC/DO and HQ ACC/DR for developing or modifying ALSE consistent with operational requirements. AFRC units will route recommendations through HQ AFRC/DOTSL for forwarding to HQ ACC/DOTO.

2.9.11. Advises users when the lead MAJCOM will no longer procure specific ALSE for them. This will allow MAJCOMs and ANG time to budget for the equipment.

2.9.12. Establishes ALS continuation training (ALSCT) programs.

2.9.13. Establishes and evaluates ALS technician and supervisor training programs IAW AFI 36-2201, *Developing, Managing, and Conducting Training*. LSOs and enlisted ALSCT instructors must comply with AFI 36-2105, *Officer Classification*, AFI 36-2108, *Airman Classification*, and Table 2 of this instruction. Each MAJCOM will review and update the Career Field Education and Training Plan (CFETP), Attachment 3, as required.

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

2.9.15. Ensures LSOs (rated officers) fly periodic sorties in primary assigned aircraft to evaluate the adequacy of personal and aircraft-installed ALSE.

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

2.9.17. Establishes and evaluates unit quality assurance (QA) programs.

2.9.18. Evaluates AFTO Forms 22, **Technical Order Improvement Report and Reply**, and AF Form 1000, **Idea Application**, which refer to ALS systems.

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

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

2.9.20. **(SEYMOUR JOHNSON)** Each ALS section will submit a copy of their AFTO Form 223, Time Change Requirements Forecast, to OSOL for consolidation and submittal. ALS sections will report all off-aircraft items.

2.9.20.1. **(Added-SEYMOUR JOHNSON)** CADPAD, Life Sustaining, and Munitions Forecasts are due to OSOL by 15 July each year, unless 4 MOS/MXOOP or HQ ACC/A3TO requests this information earlier.

2.9.21. Monitors deficiency reports (DR) applying to the ALS system.

2.9.22. Monitors the overall operation of the ALS Program in subordinate units. Serves as a focal point concerning unit ALS matters.

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

2.9.23.1. **(Added-ACC)** Host an annual ACC Life Support working group conference. Required membership should include the wing LSO, and LSS from each ACC wing. Intent of this working group is to establish ACC development and sustainment priorities for presentation to the Aircrew Protection Working Group.

2.9.24. Monitors and reviews the unit type code (UTC) logistics detail (LOGDET) for changes in missions and requirements. See **Chapter 6** for specific pilot and non-pilot unit responsibilities.

2.9.25. Conducts periodic site visits (e.g., staff assistance visit [SAV], aircrew standardization and evaluation visit [ASEV], readiness assistance visit [RAV]) to subordinate units for the purpose of providing HHQ level assistance and to remain connected to unit level requirements.

2.9.25. **(SEYMOUR JOHNSON)** During staff assistance visits (SAV'S), the entire ALS program will be reviewed. Priority is correcting discrepancies, while emphasis will be placed on finding the underlying causes. Additional SAVs may be conducted as required. SAVs will begin with an in-brief to squadron leadership. Upon completion of the SAV, the unit leadership, LSO, and NCOIC will be out-briefed on the results. When required, the LSS will return one month later for a one-day follow-up visit. Written corrective actions for each discrepancy will be forwarded to squadron CC, DO and OSOL by the squadron NCOIC/LSO no later than thirty duty days after out-brief.

2.9.25.1. **(Added-ACC)** HQ ACC/DOTO will conduct staff assistance visits at least every 30 months. Not applicable to AFRC/ANG.

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

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

2.9.27.1. Identifies and defines, by National Stock Number, total life support program AFCAIG/CPFH requirements for each MDS aircraft configuration within the command.

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

2.9.27.3. Notifies unit Operations Group commanders of approved "funded" requirements and ensure program needs are met.

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

2.9.29. **(Added-ACC)** Assist subordinate units with reviews of AFI 25-201 involving aircrew life support functions if required. Approve subordinate unit changes to host tenant support agreement in conjunction with the associate MAJCOM.

2.10. Operations Group Commander or ARC Equivalent:

2.10.1. The operations group commander or equivalent will appoint a rated officer to serve as the LSO and the wing ALS manager. An ALS Senior NCO (or civil service or contractor equivalent) will serve as the wing life support superintendent (LSS) to assist the LSO in the management of the wing ALS Program. The group LSO and the LSS are responsible to the operations group commander for the management of the wing/group ALS program. **EXCEPTION:** Appointment of an LSO in the ANG and rescue flight is optional.

2.10.1. **(ACC)** LSOs will be rated officers who are qualified and current in the primary aircraft of assignment and are required to complete training requirements as defined in **Table 4.1.** of AFI 11-301. LSOs are awarded the L prefix to their Air Force Specialty Codes (AFSC) (11XX or 12XX) after successfully completing the prerequisites of AFI 36-2105, *Officer Classification*. Assignment stability is an important part of the aircrew life support officer function. Primary duty LSOs should serve for at least 24 months. Not applicable to ANG.

2.10.1.1. **(Added-ACC)** The LSS is the OG/CC POC for LS functional responsibilities, man-power/manning requirements, and assignment/reassignment of life support personnel in the wing/group.

2.10.1.1. **(SEYMOUR JOHNSON)** OSOL is the focal point for all group ALS matters and is the point of contact (POC) for all communications and coordination with higher headquarters pertaining to ALS. The OSOL Aircrew Life Support Superintendent (LSS) is the Functional Manager for the Aircrew Life Support (IT1X1) program and units within the 4 FW. Additionally, the LSS will make recommendations to the Operations Group Commander (OG/CC) to ensure the most competent and qualified personnel are evenly distributed within the squadrons

2.10.2. Ensure the LSS or government quality assurance representative (for contract organizations) is appointed to the wing Exercise Evaluation Team (EET) to evaluate and ensure compliance with ALS areas of responsibility.

2.10.3. Ensure the ALSCT program is actively managed and instructors are qualified and certified IAW **Chapter 5** of this publication.

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

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

2.10.5. Ensure ALS facilities meet standards in AFI 32-1024, *Standard Facility Requirements*, and AFH 32-1084, *Facility Requirements*.

2.10.6. Ensure funds are allocated for the continued management of all ALS programs and contingency plans.

2.10.6. **(ACC)** In coordination with the OG Resource Advisor, ensure each Life Support section establishes a Government Purchase Card for flying hour use as well as chemical defense assets.

2.10.6. **(SEYMOUR JOHNSON)** In coordination with the OG Resource Advisor, the Government Purchase Card program for chemical defense assets will be managed/maintained by the group life support section. Operational units may have GPC cards to use against that account.

2.10.6.1. **(Added-ACC)** Ensure units have adequate aircrew life support equipment to support unit contingencies. Support sending LSO and LSS to the annual Life Support conferences and symposiums to the maximum extent possible.

2.10.7. During wartime contingencies, Inspector General Exercises (IGX), Operational Readiness Exercises (ORE), Mobility Exercises (MOBEX), Readiness Assistance Visits (RAV), and generation exercises, ALS personnel must be available to perform mission-essential duties to sustain ALS operations (i.e., ALSE issue, fitting and inspection, aircraft-installed ALSE configurations, pre-deployment ALS briefings, aircrew contamination control area (ACCA) operations, ALSE decontamination, etc.).

2.10.7. **(SEYMOUR JOHNSON)** Fighter Training Unit (FTU) ALS specialist will be used for generating deploying aircraft and outfitting deploying aircrews. All FTU ALS specialists will be fully qualified to perform aircrew chemical decontamination area (ACCA) and shelter processing duties, 9mm hand gun issue, pallet build-up, ground crew chemical defense, and if required, fork lift operations.

2.10.7.1. **(Added-ACC)** Ensure aircrew life support and ALSTI personnel are knowledgeable of unit OPlans, DOCs, and UTCs as they relate to the operation and maintenance of ALS equipment at deployed locations.

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

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

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

2.10.11. Ensure all aircrew and passengers wear or have readily available aboard the aircraft for use all required ALSE. In no case will equipment worn or carried on aircraft be less than that prescribed by AFI 11-202, Vol 3 and AFI 11-302, Volume 1, *C-5, C-9, C-17, C-20, C-21, C-27, C-130, C-141, KC-10 and C/KC-135, Maintenance and Configuration Requirements for Aircrew and Aircraft-Installed Life Support Equipment (LSE)* (projected to be AFI 11-301, Volume 2).

2.10.12. Ensure only flying clothing and ALSE items approved "safe-to-fly" and authorized by the Air Force Equipment Management System (AFEMS), T.O.s, aircraft-specific manuals, and this instruction are utilized for flight operations. All other items require approval from appropriate MAJ-COM ALS focal point prior to use.

2.10.12.1. **(Added-ACC)** Specify by further supplementing this instruction the type of seasonal clothing, temperature ranges and/or calendar months, and specific operational missions when sea-

sonal flying clothing is worn. Deviations from AFI 36-2903 are processed through normal command channels.

2.10.12.1. **(SEYMOUR JOHNSON)** Recommended seasonal flying clothing combinations are as follows. Final responsibility for ensuring adequate clothing combinations are worn by assigned aircrews and passengers rests with the squadron commander.

2.10.12.1.1. **(Added-SEYMOUR JOHNSON)** Temperatures above 69 degrees F. (Normally Jun, Jul and Aug)

2.10.12.1.1.1. **(Added-SEYMOUR JOHNSON)** Nomex Flight suit

2.10.12.1.1.2. **(Added-SEYMOUR JOHNSON)** Flight Boots

2.10.12.1.1.3. **(Added-SEYMOUR JOHNSON)** Nomex Flight Gloves

2.10.12.1.2. **(Added-SEYMOUR JOHNSON)** Temperatures 45 – 69 degrees F. (Normally Apr, May, Sep and Oct)

2.10.12.1.2.1. **(Added-SEYMOUR JOHNSON)** Nomex Flight suit

2.10.12.1.2.2. **(Added-SEYMOUR JOHNSON)** Flight Boots

2.10.12.1.2.3. **(Added-SEYMOUR JOHNSON)** Nomex Flight Gloves

2.10.12.1.2.4. **(Added-SEYMOUR JOHNSON)** Nomex Flight Jacket

2.10.12.1.3. **(Added-SEYMOUR JOHNSON)** Temperatures 10-44 degrees F. (Normally Mar and Nov)

2.10.12.1.3.1. **(Added-SEYMOUR JOHNSON)** Nomex Flight suit

2.10.12.1.3.2. **(Added-SEYMOUR JOHNSON)** Flight Boots

2.10.12.1.3.3. **(Added-SEYMOUR JOHNSON)** Nomex Flight Gloves

2.10.12.1.3.4. **(Added-SEYMOUR JOHNSON)** Nomex Flight Jacket

2.10.12.1.3.5. **(Added-SEYMOUR JOHNSON)** Thermal Underwear (fire retardant)

2.10.12.1.4. **(Added-SEYMOUR JOHNSON)** Temperatures –30-09 F. (Rarely but sometimes in Dec Jan and Feb)

2.10.12.1.4.1. **(Added-SEYMOUR JOHNSON)** Nomex Flight suit

2.10.12.1.4.2. **(Added-SEYMOUR JOHNSON)** Flight Boots with Wool Socks

2.10.12.1.4.3. **(Added-SEYMOUR JOHNSON)** Nomex Flight Gloves or Winter Flying Gloves

2.10.12.1.4.4. **(Added-SEYMOUR JOHNSON)** Nomex Flight Jacket, Winter Weight

2.10.12.1.4.5. **(Added-SEYMOUR JOHNSON)** Thermal Underwear (fire retardant)

2.10.12.1.4.6. **(Added-SEYMOUR JOHNSON)** Black Wool Watch Cap or B9B Cap (Carried)

2.10.12.1.4.7. **(Added-SEYMOUR JOHNSON)** Second layer of Thermals

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

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

2.10.12.4. **(Added-ACC)** Units deploying to Alaska to participate in Cope Thunder will review the specific requirements listed in the Cope Thunder website: <http://copethunder.eielson.af.mil/>.

2.10.13. Evaluate and forward waiver requests to respective MAJCOMs, NAFs or ANG.

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

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

2.10.13.3. ANG units will forward waiver requests through the POC to ANG/DOOS.

2.10.13.4. AFRC units will forward waiver requests through applicable NAF to HQ AFRC/DOT.

2.10.14. **(Added-ACC)** Ensure an area is designated for use by aircrew members to evaluate the operational integrity of NVDs, make proper adjustments, and focus before departure for flight.

2.11. Operations Group LSO/LSS. The LSO and LSS will:

2.11.1. Ensure ALS personnel are trained and certified IAW **Chapter 4** of this instruction.

2.11.1.1. **(Added-ACC)** LSO and LSS budget for and attend annual Life Support conference and symposiums to the maximum extent possible.

2.11.2. Ensure a T.O. distribution account is established for each ALS section assigned within the operations group. Ensure that ALS sections maintain a current file of publications, T.O.s and manuals pertaining to issue, inspection, maintenance and use of assigned ALSE, and ensure compliance with instructions contained therein. Ensure a familiarization program exists to ensure ALS personnel are knowledgeable of T.O.s and publications.

2.11.2. **(ACC)** Publish unit T.O. options and post them with the technical order library.

2.11.2. **(SEYMOUR JOHNSON)** MAJCOM/SJAFB T.O. Option list will be placed in front of each T.O. binder.

2.11.2.1. **(Added-ACC)** Ensure a familiarization program exists to make certain ALS personnel are knowledgeable of T.O.s, technical order options, publications, messages, and the HQ ACC/ DOTO web page.

2.11.3. Conduct SAVs annually to each subordinate activity. Maintain records of such visits for at least 2 years IAW 37-139. The respective functional manager will determine SAV frequencies for the ANG and AFRC.

2.11.3.1. **(Added-ACC)** Monitor deficiencies identified during SAVs, UCIs, and ORIs until corrective actions have been completed. Review quarterly.

2.11.3.2. **(Added-ACC)** Task evaluations will be conducted during annual SAVs. Document such evaluations in report. The LSS will determine the type of evaluation to be conducted, how many evaluations are required, and who will be evaluated.

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

2.11.5. Monitor Time Compliance Technical Order (TCTO) programs to ensure satisfactory integration of ALSE with aircrew recovery systems. Advise HHQs of program delays or supply problems as they occur, and upon completion of the TCTO.

2.11.5. **(ACC)** Maintain a record of applicable TCTOs for 2 years from date rescinded.

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

2.11.7. LSOs will maintain currency in unit-equipped aircraft. If equipment modifications are made that change ground egress, ejection procedures, or affect crew comfort, LSOs will fly with the new equipment to identify required changes to operational and training procedures. This duty may be delegated to squadron level LSOs for those units with more than one mission design series (MDS).

2.11.8. Support Aero Clubs, if within unit capability, with issue of ALSE and training as outlined in AFI 34-217, *Air Force Aero Club Program*.

2.11.9. Ensure other units' reports (e.g., operational readiness inspections [ORI], unit compliance inspections (UCI), Air Force audits, etc.) are reviewed for benchmarking and comparison.

2.11.10. Submit requests to the command ALS functional manager for waivers to the CFETP core task requirements.

2.11.11. Conduct initial task certifications for the ALS section NCOICs.

2.11.11. **(ACC)** Question and answer sessions do not qualify as task certification. Task certifications will include a total review of all applicable guidance from associated technical orders and AFIs.

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

2.11.13. Ensure newly developed (COTS/NDI) ALSE pursued by units for Air Force aircraft as well as for aircrew use is evaluated and approved using 311 HSW/YA requirements identified at:

<https://hswya.brooks.af.mil/common/mil-gov/vac/yacl/nticots/NDICOT1>.

2.11.13.1. **(Added-ACC)** Submit operational ALS requirements for evaluation and action via the group LSO/LSS through the local OG/CC to HQ ACC/DOT. AFRC units will forward operational ALS requirements to HQ AFRC/DOTSL for action. ANG will send to ANG/XOOS,

2.11.14. Ensure mishap response kits are developed and available to allow active participation as an interim or primary mishap investigation board member.

2.11.15. **(Added-ACC)** Aircrew Protection Panel: Not applicable to AFRC.

2.11.15.1. **(Added-ACC)** Host and document a semiannual aircrew protection panel meeting. The aircrew protection panel is chaired and managed by the operations group LSO or LSS. This panel is convened at least semiannually to review and take action on support associated with ALSE configuration, inspection, modification/TCTO, or control procedures and ALSCT issues. AFRC panels are managed by the life support supervisor.

2.11.15.2. **(Added-ACC)** Core panel members will consist of ALS NCOICs, primary ALSCT instructor(s), egress, plans and scheduling, base supply, quality assurance, CE readiness, SERE, base safety, aircrew members, survival equipment personnel, and maintenance personnel. Other agencies such as intelligence, enlisted specialty training managers, medical logistics, and flight medicine should be included as necessary to assist with training issues, equipment inspection, modification requirements, or control procedures. If there are no issues pertaining to core panel members, they are not required to attend.

2.11.16. **(Added-ACC)** Ensure units develop a master configuration data list to assist in determining unit equipment requirements. Some variables to consider in formulating this list are number of aircraft assigned (single/dual seat/multi-place), number of survival kits (to include maintenance turnaround spares), number of aircrew supported (to included attached), 10 percent spare equipment, etc.

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

2.11.18. **(Added-ACC)** Establish a standardized aircrew life support quality assurance program IAW paragraph **3.7.** and **Attachment 4 (Added)** of this instruction.

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

2.11.20. **(Added-ACC)** Coordinate with maintenance functions to ensure that all aircrew life support training devices are operational and modified, as required.

2.11.21. **(Added-ACC)** Establish, manage, and supervise centralized ALSCT according to this instruction (as supplemented). The group LSO and/or LSS will randomly attend training sessions to review and critique the following areas:

2.11.21. **(SEYMOUR JOHNSON)** OSS/OSOL will maintain consolidated wing egress, post ejection and aircrew chemical defense (ACDE) training rooms.

2.11.21.1. **(Added-ACC)** Event presentation and instructor knowledge.

2.11.21.1. **(SEYMOUR JOHNSON)** Squadron LSOs or schedulers must call OSS/OSOL at least 24 hours in advance to schedule training rooms for egress, post ejection and ACDE training. OSS/OSOL may upon request assist with post ejection training.

- 2.11.21.2. **(Added-ACC)** Condition and use of training aids.
- 2.11.21.2. **(SEYMOUR JOHNSON)** OSS/OSOL will provide the primary ALSCT instructor for all training classes, except ACDE training. Squadrons will provide ALSCT instructors for ACDE training.
- 2.11.21.3. **(Added-ACC)** Aircrew involvement/hands-on demonstrated proficiency.
- 2.11.21.4. **(Added-ACC)** Instructor and student safety requirements and conditions.
- 2.11.22. **(Added-ACC)** Ensure annual ALS equipment training is provided to fire department personnel for the purpose of aircrew rescue and extraction IAW AFI 32-2001.
- 2.11.22.1. **(Added-ACC)** The fire department will be appraised of any changes in equipment type or operation that may affect aircrew rescue or extraction. Ensure personnel are provided training on the functional use and operation of ALSE that may be encountered during extraction operations.
- 2.11.22.2. **(Added-ACC)** Ensure assigned ALSE (G-suit, COMBAT EDGE vest, torso harness, helmet/masks, etc.) is made available to fire department personnel for the purpose of training crash rescue teams.
- 2.11.23. **(Added-ACC)** Ensure, when requested, local rescue agencies are provided training on the functional use and operation of aircrew life support equipment that may be encountered during local rescue operations. Local agencies should be apprised of any changes in equipment type or operation.
- 2.11.24. **(Added-ACC)** Ensure all assigned ALS program personnel, to include senior NCOs assigned to a flying squadron, maintain an accurate OJT record. If the LSS does not maintain OJT records, they will ensure their own egress and Red X certifications are properly documented in CAMS or an AF IMT 1098, **Special Task Certification and Recurring Training**. Not applicable to ANG unless in retraining status.
- 2.11.25. **(Added-ACC)** Determine the number of aircrew life support personnel required to attend formal survival/instructor courses IAW **Table 4.1**. Formal AETC courses will be requested through HQ ACC/DOTO. AFRC units will forward requests through the NAF to HQ AFRC/DOTSL.
- 2.11.26. **(Added-ACC)** Maintain and monitor T.O. 11A-1-1 to ensure serviceability of ALS munitions. Publish, distribute, and update a restricted munitions listing based on T.O. 11A-1-1 and or notification from base munitions.
- 2.11.27. **(Added-ACC)** Ensure compliance with all safety standards to include, but not limited to, AFOSH training, documentation, and increased precautions for storage of lithium batteries (AFMAN 23-110V1, Part 1, Chapter 4, Section 4C, Storage and Handling of Lithium Batteries).
- 2.11.28. **(Added-ACC)** Ensure the ALS section is designated a limited access area as a minimum to control flow procedures. Upgrade flow control procedures as necessary to ensure equipment security.
- 2.11.29. **(Added-ACC)** Monitor and validate data entered in the APWEB and ALERTS website monthly.
- 2.11.30. **(Added-ACC)** Coordinate bi-annual Budget Execution Reviews (BER) submissions with OG Resource Advisor and submit to HQ ACC/DOTOL no later than January and June each year. AFRC units should follow AFRC guidance.

2.11.31. **(Added-ACC)** Monitor the Soldier and Biological Chemical Command web site monthly to ensure serviceability of aircrew chemical warfare assets.

2.11.32. **(Added-ACC)** If applicable, coordinate with the local Fuels Management flight for maintenance/fitting of Forward Aerial Refueling Point (FARP) and Aerial bulk fuel Delivery System (ABFDS) team members Life Support equipment (i.e., helmet and oxygen mask to include oxygen connectors). Storage of this equipment will be at the discretion of the LSS. The Fuels Management flight will be responsible for funding and obtaining parts required for maintenance. Additionally, the Fuels Management flight will provide the LSS with a POC to contact if Life Support equipment is overdue prescribed inspection intervals. Consult AFI 23-201, *Fuels Management*, if additional guidance is required.

2.11.33. **(Added-SEYMOUR JOHNSON)** The LSS and NCOICs will meet once a week to discuss the status of projects, health of program, and the well-being of personnel. If a situation develops, this meeting will support an aircrew protection panel to review and take real-time action on issues associated with training concerns, ALSE configuration, equipment inspection, modification/TCTO, or control procedures. Besides LSS and NCOICs, the following core panel members should be included as necessary to assist: egress, plans and scheduling, supply, quality assurance, CE readiness, SERE, base safety, aircrew members, survival equipment personnel, intelligence, enlisted specialty training managers, and flight medicine.

2.12. Squadron Commanders:

2.12.1. Appoint a rated officer to function as the additional duty aircrew LSO, and an ALS NCO (IT1X1) as the ALS NCOIC to carry out the duties and responsibilities listed in this AFI. LSOs must be rated officers, serve a minimum of 12 months, and be assigned to each flying squadron or rescue flight. Refer to **Table 4.1.** of this instruction for LSO training and certification. **EXCEPTION:** Appointment of an LSO in the ANG and rescue flight is optional.

2.12.1. **(SEYMOUR JOHNSON)** Support sending to the maximum extent possible the LSO and NCOIC (as minimum) to annual Life Support conferences and symposiums.

2.12.2. Implement policies and procedures as HHQs directs.

2.12.3. Conduct OT&E programs on ALSE as HHQs directs.

2.12.4. Supervise the unit ALS technician training program IAW AFI 36-2201.

2.12.5. Ensure instructions, publications, manuals, procedures, and T.O.s pertaining to the inspection, maintenance, and use of assigned ALSE, systems, and subsystems are maintained according to HHQs directives.

2.12.6. Ensure ALSCT is accomplished IAW **Chapter 5** of this instruction, the appropriate AFI 11-2MDS-series, Volume 1 publications, and command supplements to this instruction.

2.12.7. Restrict from flying any aircrew who has not completed required training events (grounding events only).

2.12.8. Ensure adequate vehicles are available to transport ALSE. Vehicles will be properly maintained, configured with required safety devices and will protect ALSE from the elements.

2.12.9. Ensure the ALS program is operating in compliance with all applicable safety directives.

- 2.12.10. Ensure all aircrew process through the ALS section upon arrival or departure from squadron.
- 2.12.11. Ensure adequate funding is provided to sustain non-cost per flying hour program items, i.e., aircrew chemical defense equipment, helmets, and night vision devices.
- 2.12.12. Monitor the progress of TCTOs effecting ALSE within their squadron.

2.13. Squadron LSOs/NCOICs:

- 2.13.1. Maintain a current file of directives, procedures, T.O.s, and manuals pertaining to issue, inspection, maintenance, and use of ALSE or systems possessed, and ensure compliance with instructions contained therein.
- 2.13.2. Monitor aircraft conversion and TCTO modification programs to ensure satisfactory integration of ALSE with aircrew recovery systems. Advise wing/group LSOs of program delays or supply problems as they occur.
- 2.13.3. Perform an annual in-depth, ALS program assessment IAW MAJCOM/wing self-assessment program. A record of assessment reports, discrepancies, and corrected actions will be maintained for 2 years IAW AFI 37-139.
- 2.13.3. **(ACC)** Forward copies of self-assessment through squadron commanders to LSO/LSS. This program assessment will not be conducted concurrently with operations group staff assistance visits.
- 2.13.4. Monitor status of deficiencies identified during SAVs, UCIs, ORIs, and unit self-assessments until corrective actions have been completed. Corrective actions will be documented as prescribed by governing instructions or as required to reflect current status and actions taken.
- 2.13.4. **(ACC)** Route status of open discrepancies to the LSS through the squadron CC quarterly.
- 2.13.5. Ensure compliance with all ALS administrative, training, clothing, equipment, and mobility requirements as designated in the applicable chapters of this instruction.
- 2.13.6. Forward unit level acquisition and sustainment requirements to the operations group LSO/LSS. These inputs are the root of ALS systems requirements that feed the APEC process.
- 2.13.7. Ensure newly developed (COTS/NDI) ALSE pursued for Air Force aircraft as well as for aircrew use is evaluated and approved using 311 HSW/YA requirements identified at:
<https://hswya.brooks.af.mil/common/mil-gov/yac/yac/nticots/NDICOT1>.
- 2.13.8. **(Added-ACC)** Squadron NCOICs or designated representatives will initially certify all shop personnel on all shop core tasks. Question and answer sessions do not qualify as task certification. Task certifications will include a total review of all applicable guidance from associated technical orders.
- 2.13.9. **(Added-ACC)** If hand held lasers are issued from the Life Support section, consult AFI 11-301V4 found on the ACC Life Support website. NCOICs will ensure the applicable Class III Laser (Danger) signs are on hand. Ensure assigned personnel are familiar with the extreme dangers of these devices IAW the forthcoming AFI 11-301V4.
- 2.13.10. **(Added-ACC)** Ensure a Life Support representative attends the weekly maintenance scheduling meeting.

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

2.14.1. ACs of multi-place aircraft will ensure all prepositioned ALS and survival equipment items are serviceable, inventoried, and certified on the AFTO Form 46, **Prepositioned Life Support Equipment** (or equivalent), prior to flight or alert. Notify the ALS section of any onboard equipment shortages or unserviceable conditions. Note discrepancies in the AFTO Form 781F, **Aerospace Vehicle Flight Report and Maintenance Document**.

2.14.2. Crewmembers whose main function is performing duties in the rear of a multiplace aircraft, e.g., combat camera and aeromedical nurses and technicians will coordinate emergency actions and clothing requirements with a qualified crew member (i.e., aircraft commander, boom operator, loadmaster) prior to flight. ACs will determine the clothing requirements for the route of travel when performing passenger or patient transport missions aboard MAJCOM support aircraft. The AC is responsible for ensuring each crewmember is wearing the required clothing and equipment, or has it aboard the aircraft and readily available for flight or alert duty. Military passengers, except for litter bound patients, are responsible for ensuring clothing needs meet environmental requirements IAW AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*.

2.14.3. The AC or designated aircrew representative will document and ensure missing ALSE and enroute configurations are annotated on AFTO Form 781A, **Maintenance Discrepancy and Work Document**, and AFTO Form 46 (or equivalent). Entries will include as much information as possible to assist ALS in locating and recovering missing ALSE (i.e., station where discovered missing, names, agencies and persons contacted, etc.) Reports of survey will be initiated IAW AFMAN 23-220, *Reports of Survey for Air Force Property*.

2.14.4. ACs of multi-place aircraft will ensure all ALSE items to include survival kits, life preservers, anti-exposure suits, emergency passenger oxygen systems (EPOS), passenger oxygen kits (POK), and parachutes are returned to their proper storage location.

2.15. Aircrew Members:

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

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

2.15.3. Possess all required Aircrew Chemical Defense Equipment (ACDE) items prior to deploying to a chemical threat area or serving on conventional warfare alert as required by reporting instructions.

2.15.4. Receipt for ACDE on an AF Form 1297, **Temporary Issue Receipt**, or other authorized forms when equipment is issued and properly sized and fitted by life support. Return ACDE to the ALS facility upon completion of training, alert tour, or temporary duty (TDY).

2.15.5. Maintain proficiency in donning, doffing, buddy dress, and aircrew contamination control area (ACCA) decontamination procedures including open air processing as applicable.

2.15.6. Securely store all ALSE to prevent damage or theft while in their possession.

2.15.7. Perform preflight inspections on all assigned or prepositioned ALSE as required by appropriate aircraft manuals, T.O.s, local policies, and HHQs directives.

2.15.8. **(Added-ACC)** Ensure all issued ALSE fits properly. Promptly notify ALS personnel due to fluctuations in weight, or any other situation that would affect fit of equipment. This is to validate equipment fits IAW T.O. guidance, i.e., weight gain/loss, aging/use/stretching of materials equipment is constructed of, bulkiness or lack of hair, not all inclusive.

2.16. Support Agencies:

2.16.1. Survival Equipment element responsibilities are identified in AFI 21-101, *Aerospace Equipment Maintenance Management*.

2.16.2. Egress element responsibilities are identified in AFI 21-101 and AFI 21-112, *Aircrew Egress Systems Maintenance*.

2.16.2.1. **(Added-SEYMOUR JOHNSON)** Egress will certify all IT1X1 personnel on removal and installation of the ACES II parachute and survival kit. This certification can be used to update the technician's AF Form 1098 for these tasks.

2.16.3. Medical Treatment Facility (MTF).

2.16.3.1. Optometry Clinic: Provides optometry support for chemical warfare eyepieces, contact lenses, screening of users for laser visors, high contrast visors, and night vision devices. Modifies aircrew spectacle temple bars used with the MBU-13/P mask IAW AFJI 44-117, *Ophthalmic Services*.

2.16.3.2. Flight Medicine: Conducts quarterly visits to ALS sections to ensure compliance with T.O. 15X-1-1, *Maintenance Instructions, Oxygen Equipment*, standards. The flight surgeon inspects ALS shops for compliance with occupational health and safety standards and assists in resolving mask-fitting problems. Records of such visits are maintained IAW AFI 37-139.

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

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

2.16.3.5. Aerospace Physiology. As applicable, will provide physiological training to aircrew and ALS personnel.

2.16.3.6. Public Health: Inspects rations and canned or packaged water IAW DPSC Handbook 4155-2, Appendix A, *Meal, Ready-to-eat (MRE) Inspection Responsibilities and Procedures* (projected to be DPSC 4155.2, Appendix E, *Inspection Guide for Food Packet, Survival, General Purpose*).

2.16.4. Test Measurement and Diagnostic Equipment (TMDE) Lab. Calibrates all test equipment used by ALS personnel to maintain aircrew flight equipment.

2.16.5. Aircraft Electrical Environmental System element responsibilities are addressed in AFI 21-101.

2.16.6. Plans, Scheduling and Documentation Section. Notifies the ALS section of new aircraft arrivals and transfers so that they can process documentation records. Contacts the ALS section to perform incoming aircraft acceptance inspections of survival kits, parachutes, and other aircraft-installed ALSE IAW T.O. 00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*.

2.16.7. Safety: Provides safety inspections, and assistance in Operational Risk Management (ORM) assessments as required. Notifies ALS personnel and aircrews of flight safety issues relating to ALS programs or procedures.

2.16.8. Combat Arms (CA) Section. Provides weapons training for ALS personnel IAW AFMAN 36-229, *Weapons Handling Manual*, AFI 36-2226, *Combat Arms Program*, AFI 36-2227, Volume 1, *Combat Arms Training and Maintenance (CATM) Training Management and Range Operations*, and AFI 36-2227, Volume 2, *Combat Arms Training and Maintenance Rifle, Handgun, Shotgun, Grenade Launcher, M72 Light Anti-Tank Weapon, Submachine Gun, and M249 Squad Automatic Weapon Training Programs*.

2.16.9. Munitions: Monitors the status of munitions suspended or restricted by T.O. 11A-1-1, *Conventional Munitions, Restricted or Suspended*. Provides immediate notice of suspended or restricted lot numbers to all known users of affected national stock numbers (NSN). Assists ALS personnel in managing munitions accounts to include time-change forecasting and ordering.

2.16.9. **(SEYMOUR JOHNSON)** To ensure safe handling of explosives Life Support personnel will closely follow guidance addressed in [Attachment 1](#).

2.16.10. Logistics Group AFCAIG/CPFH Analyst/Resource Advisor: Has overall responsibility of the total flying hour program dollars and will include ALS in their monthly AFCAIG/CPFH reporting and coordinate with operations group as needed to obtain program status.

2.16.11. **(Added-ACC)** Aircrew Life Support Curriculum Development Section (436 TS, Dyess AFB TX). This function is responsible for conducting course Y120006, ACC Life Support Instructor; and Y120004, Program Manager's Course. This section is also responsible for validating, establishing, and maintaining course training criteria and exportable instructor guides and training materials for related aircrew life support training programs. Available instructor guides are listed in the 436 STS catalog. Instructor Guides may be acquired from the 436 TS/FS by letter or message and also found at the 436th website. The content of course curriculum and exportable courseware will be approved by HQ ACC/DOTO prior to implementation or publication.

2.16.12. **(Added-ACC)** 53 Wing (WG), Eglin AFB FL. The aircrew life support test manager (AFSC 1T191/71) assigned to the 53 Test Management Group (TMG), 28 Test Squadron (TS), will perform duties as the Life Support functional manager for the 53 WG and is the focal point for all issues relating to the 53 WG Life Support sections. The ranking ALS NCOIC assigned to the 53 Test and Evaluation Group (TEG) will perform Aircrew LSS responsibilities specified in this instruction for the life support sections assigned to the 53 TEG. The Life Support NCOIC assigned to the 83 Fighter Weapons Squadron will perform aircrew LSS responsibilities specified in this instruction for the Life Support sections assigned to the 53 Weapons Evaluation Group. The 53 WG functional manager will be kept informed of all correspondence with higher headquarters.

2.16.13. **(Added-ACC)** Aerospace Physiological Support Unit (Beale AFB, CA). Due to the unique mission and flight environment of U-2 operations, the 9 PSPTS/SGT Aerospace Physiological Support Unit provides support for these aircraft. ACCI 11-459, *U-2/SR-71 Physiological Support Program*, provides detailed support procedures and establishes Aircrew Life support equipment and enlisted specialty training requirements are the responsibility of the 9th Operations Group and outlined in AFI 11-301V1_BEALE AFB SUP 1. A copy of AFI 11-301V1_BEALE AFB SUP 1 must be forwarded to HQ ACC/DOTO for approval prior to issuance.

2.17. (Added-ACC) HQ ACC Staff Agencies. Within HQ ACC, other staff agencies involved with the ALS program are:

2.17.1. **(Added-ACC)** HQ ACC/DRS, Systems Support Division. Defines requirements and plans and guides acquisition programs to fulfill equipment, training, and bed down needs of CAF. HQ ACC/DRS represents the CAF throughout development and testing of combat training ranges, aircrew training devices, aircraft engines and avionics subsystems, and life support systems. Submits POMs for new development to include R&D, production funds, and aircraft modifications in support of published requirements for the CAF. Represents the command at USAF, AFMC, and other ALS conferences on the development of new equipment, where appropriate.

2.17.2. **(Added-ACC)** ACC IGS, Inspector General Squadron. Conducts Operational Readiness Inspections and Unit Compliance Inspections of subordinate units to determine management effectiveness, compliance with directives, and mission performance capability. Consult AFI 90-201_ACC SUP 1, *Inspector General Activities*; and ACCDIR 90-2501, *Compliance and Standardization Requirements List (C&SRL —Aircrew Life Support (ALS) Functional Area*; for additional information.

2.17.3. **(Added-ACC)** HQ ACC/LGMS, Aerospace Support Branch. Provides egress, survival equipment, and electro-environmental expertise to the HQ ACC staff. Manages all egress, survival equipment and electro-environmental issues forwarded to HQ ACC.

2.17.4. **(Added-ACC)** Air Force Safety Center (AFSC). Provides aircrew life support experience data through the Life Sciences Division of the Directorate of Aerospace Safety. Information derived from USAF aircraft mishaps is collected, evaluated, stored, and distributed as required to aircrew life support system programs. AFSA may also recommend specific programs to correct aircrew life support system deficiencies. All requests for information from HQ AFSA will be processed through safety channels to HQ ACC/SE who will request the information from HQ AFSA to ensure release of information requested complies with the requirements of AFI 91-204. This can be accomplished by telecom or e-mail.

Chapter 3

UNIT ALS PROGRAM MANAGEMENT

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

3.2. Budgeting:

3.2.1. Each ALS organization must use established DOD and USAF budgeting procedures to ensure proper funding of their ALS program.

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

3.3. Supply Accounts:

3.3.1. Each ALS section, to include the Operations Support Squadron (OSS) ALS staff supporting training functions, will budget for and establish their own supply account as specified by AFMAN 23-110, Vol 2, Part 13, Chapter 8.

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

3.3.3. Ensure custodians receive base supply customer training as needed IAW AFMAN 23-110, Volume 2, Part 13, and the Education and Training Course Announcements (ETCA) site at:

<https://etca.randolph.af.mil/>.

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

3.3.4. (ACC) Monitor supplies from date ordered to date received through use of automated supply products, i.e., DO-4, D-18, M-30, M-36, R-31, and R-14 products. Maintain an accurate listing of all back ordered items.

3.3.4.1. (Added-ACC) Ensure AFEMS TORC screen authorizations are accurate and reviewed semi-annually.

3.3.4.1. (SEYMOUR JOHNSON) The NCOIC and Supply Custodians will work closely with the squadron RA to track account expenditures against the appropriate budgets, and also to forecast for future budgets. Work closely with the RA on excessive expenditures caused by defective equipment, bad lot numbers, poor quality equipment, and identified future shortages that could impact or prevent mission accomplishment.

3.3.4.2. (Added-SEYMOUR JOHNSON) Consider the previous year's budget, replacement supplies, manufacturer's increased prices, and higher headquarters' initiatives when preparing budgets.

3.3.4.3. (Added-SEYMOUR JOHNSON) Ensure budgets are sent to the LSO/LSS for review subsequent to submitting them to the RA.

3.3.4.4. **(Added-SEYMOUR JOHNSON)** Ensure equipment and supplies ordered on a priority request appear on the Priority Monitor Report (D18). Submit supply difficulty letters with mission impact statements and follow up each quarter. Squadron DO, commander or higher will sign each mission impact statement.

3.3.4.5. **(Added-SEYMOUR JOHNSON)** The NCOIC/Supply Custodian will ensure assigned personnel are familiar with their responsibilities for safeguarding government property and securing pilferable items. Each life support section will maintain a signed Customer Authorization/Custody Receipt Listing (CA/CRL) folder.

3.3.4.6. **(Added-SEYMOUR JOHNSON)** Correct CA/CRL out-of-balances within 30 days. Accomplish spot checks and semi-annual inventories on assigned property. Units will document revalidation by detail number, noun, NSN, authorizing allowance standard, on-hand quantity, and basis of issue (BOI). Forward a copy of the semi-annual revalidation to the LSS for review.

3.3.5. Ensure a Configuration Data File is maintained for each supply account to show a breakdown of how each equipment item's authorization was determined (i.e., number of personnel assigned, number of aircraft [primary aircraft inventory (PAI)] assigned, number of crewmembers supported, designed operational capability [DOC] statements, operations plans [OPLAN], and UTCs tasked to support). Continuous emphasis is needed to properly control equipment. Refer to AFH 170-1, *Resource Manager's Handbook* (projected to be AFPAM 65-605).

3.3.6. Each supply account custodian must work with base supply to ensure applicable force activity designators (FAD) code is used when requisitioning ALSE. This will ensure mission essential ALSE and mobility equipment that is backordered and required for direct support of flying operations is available. When ordering time-change items, use TEX Code 8 to by-pass base level stock (if remaining service-life is inadequate to meet mission needs) and advice code "2G" to ensure assets received from depot have the most service-life remaining on item.

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

3.3.8. Use AS 016 and AS 450, aircraft configuration instructions, mission requirements, logistics details (LOGDET), MAJCOM specific guidance, and this instruction to determine the basis of equipment required. An additional 10 percent (a minimum of one set when equipment is required to be designated in sets) is authorized for change-outs to minimize aircraft down times. Units having an OPLAN or contingency plan (CONPLAN) tasking will use the following for mobility authorizations: items in column "A" in AS 016G and AS 450 are items used to support mobility UTC LOGDET requirements (items you would put on a pallet and deploy) and all accountable "individually sized" ACDE (except for ACDE assets required for training). These mobility items will be coded "Use Code A" on your custodian authorization/custody receipt listing (CA/CRL). Max number of "parent" UTC tasked items authorized in approved LOGDET. Multiply this number "times" ten percent for equipment maintenance spares. If that number is below one total set, units are authorized to exceed that quantity to make a complete set, but will not exceed the next whole set.

3.3.8. **(ACC)** AS 538 and 660 will also be utilized.

3.3.9. Each supply account custodian must submit supply difficulty and mission impact letters when experiencing delays receiving supplies and equipment.

3.3.10. **(Added-SEYMOUR JOHNSON)** Out-of-cycle requests must justify why item was not ordered properly and corrective action to prevent future out-of-cycle requests.

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

3.4.1. Aircraft ALSE components that are pre-positioned aboard aircraft, such as parachutes, survival kits, and life rafts, will be included as logistics Cost Per Flying Hour (CPFH) factors.

3.4.2. MAJCOM ALS and LG AFCAIG/CPFH managers will develop a coordinated list of National Stock Numbers (NSN) that will be authorized as AFCAIG/CPFH ALS cost factors using the federal supply group exclusion list. These will be the only items authorized to be procured using flying-hour Materiel Support Division (MSD) EEIC 644, EEIC 619 IMPAC, and General Support Division (GSD) EEIC 609 funds. Any items not on the AFCAIG/CPFH ALS listing will be considered as non-fly items.

3.4.3. Cost Accounting: AFCAIG/CPFH Flying RC/CC X12L0X will be used to account for ALS requirements. Each unit must establish an organizational code under the LG AFCAIG/CPFH Project Funds Management Record (PFMR) in standard base supply system (SBSS). The organization code should be established with type organization "7". Separate ALS planning numbers are developed and indicated on unit funding documents. Fly and non-fly funds will be tracked and managed separately since separate budget processes will be used.

3.4.4. Budget and Funding Distribution: AFCAIG/CPFH ALS items will be incorporated into the AFCAIG/CPFH Annual Call process for identifying requirements. MAJCOM ALS managers will task unit ALS managers, consolidate total requirements, and submit requirements to the MAJCOM LG AFCAIG/CPFH manager for inclusion and preparation of an AFCAIG/CPFH adjustment for each MDS. Funding for all fly ALS requirements will be considered a part of the unit LG total flying hour program allocation but will flow through the FM; which will be responsible to load the dollars against the proper organizational code.

3.4.5. Program Management and Reporting: Unit ALS has responsibility to notify the LG AFCAIG/CPFH Analyst/Resource Advisor of any unfunded AFCAIG/CPFH ALS requirements or potential excess funds. Unit LG AFCAIG/CPFH Analyst/Resource Advisor has responsibility to coordinate with the unit ALS and include the new AFCAIG/CPFH ALS RC/CC status of funds in their monthly AFCAIG/CPFH report. Unit LG AFCAIG/CPFH Analyst/Resource Advisor will include the AFCAIG/CPFH ALS items in their D26 program retrieval.

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

3.6. Transfer of ALSE:

3.6.1. During aircraft transfers or movement of ALSE, communication between depot, modification agencies, and gaining or losing units is required. Comply with the instructions in AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, AFMAN 23-110, Volume 2, Part 2, Chapter 15, *Shipments*, and T.O. 00-20-1.

3.7. Quality Assurance (QA). ALS QA programs are designed to provide feedback to technicians, trainers, supervisors, and managers to eliminate defects and deviations from established guidance.

3.7.1. Quality Inspector (QI) Requirements. ALSE QIs are highly experienced 5-skill level technicians or above, and are trained and certified in the QI process.

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

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

3.7.2.1. (ACC) Minimum QCI standards for ACC units are found in **Attachment 4 (Added)** of this instruction.

3.7.2.1. (SEYMOUR JOHNSON) All survival vest will be given 100% Quality Control Inspection (QCI).

3.7.3. Critical Points Inspection (CPI). A CPI is a check of critical requirements prior to closing a piece of equipment (e.g., survival kits, parachute spacer kit [PSK], etc.).

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

3.7.5. Monitor QA documentation (e.g., AF Form 2420, **Quality Control Inspection Summary**, or equivalent) to identify positive and negative trends.

3.7.6. (Added-ACC) Personnel Task Evaluations (PTEs) for Life Support equipment installed on ejection seat equipped and non-ejection seat aircraft:

3.7.6.1. (Added-ACC) PTE. A process which determines personnel qualification through observation, evaluation of task performance, and feedback. It includes observation of task performance, on-the-spot instruction to correct deficiencies, and a written evaluation.

3.7.6.2. (Added-ACC) Unit LSS will develop a one-page checklist denoting the minimum items listed in paragraph **3.7.6.4. (Added)** below and use to ensure coverage/compliance with these areas.

3.7.6.3. (Added-ACC) The LSS will train squadron NCOICs on the use of this checklist during the NCOIC's initial training and qualification procedures of squadron level technicians.

3.7.6.4. (Added-ACC) As applicable, minimum areas to be evaluated include checking for currency of cockpit fam/egress training, completion of maintenance forms documentation training, completion of CTK inventories prior to departing the shop, vehicle preparation and configuration, removal of jewelry, review of aircraft forms, completion of ground and cockpit safe for maintenance checks, accomplishment of applicable equipment pre-installation inspection(s), use of safety devices, familiarity with job guide checklists, effective use of voice command and response and verification procedures, FOD checks, aircraft forms documentation, and accomplishment of CTK inventories after job completion.

3.7.7. (Added-ACC) The pre-installation inspection (if required), installation/removal procedures, and a complete 30-day inspection of aircraft/ejection seat integrated parachute assemblies and sur-

vival kits satisfy the requirement for an integrated Life Support Equipment PTE. A complete 30-day inspection of a non-integrated parachute, i.e., carried to/from the ALS shop, satisfies the requirement for a non-integrated parachute inspection. A complete review of applicable parachute documents for accuracy and completeness is part of any 30-day parachute inspection.

3.8. Technical Orders (T.O.), Publications, Operating Instructions (O.I.) and Product Quality Deficiency Reports (PQDR):

3.8.1. A recommended T.O. and publications list is at **Attachment 1**. The list is for use as a reference guide only and is not all-inclusive. The list will help you determine your requirements and is not a mandatory requirement list.

3.8.1.1. ALS will maintain specific T.O.s for items serviced by the unit.

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

3.8.1.3. Proposed changes to Air Force T.O.s (AFTO Forms 22), Deficiency Reports (DR), and suggestions (AF Forms 1000) affecting ALSE will be sent to respective MAJCOM or NAF (info copy of the DR) according to T.O. 00-5-1, *Air Force Technical Order System*, and AFI 38-401, *The Air Force Innovative Development Through Employee Awareness (Idea) Program*.

3.8.1.3.1. Units will utilize the computer based Innovative Development Through Employee Awareness (IDEA) Program Data System (IPDS) to submit suggestions. Using Microsoft[®] Internet Explorer, access https://ideas.randolph.af.mil/pls/ipdsprod/dv_home_page to submit IDEAs.

3.8.1.4. The group LSS is the OPR on all ALS related proposed T.O. changes. Unless the task is performed by the supporting T.O. Distribution Office (TODO), the LSS will establish procedures within the group to assign improvement report numbers to the AFTO Form 22. As the functional experts, LSSs are responsible for reviewing and processing wing-initiated AFTO Forms 22 and DRs affecting ALSE. The LSS will evaluate AF Forms 1000 or IDEAs pertaining to ALSE.

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

3.8.3. **Operating Instructions (O.I.)**. Develop unit O.I.s or local directives, which address local mission requirements.

3.9. Aircrew Life Support Facilities:

3.9.1. Facilities will be maintained IAW applicable Air Force Occupational, Safety, and Health (AFOSH) and T.O. 15X-1-1 standards. The sensitivity of ALSE requires environmental and climatic controls. Refer to AFI 32-1024 and AFH 32-1084.

3.9.2. Store items neatly and separated to prevent commingling of serviceable, repairable, and unserviceable items. Provisions will be made to protect shelf stock components from dust, impurities, and direct sunlight.

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

3.10. Hygiene:

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

3.11. Resource Protection and Control:

3.11.1. Installation commanders designate controlled areas and storage facilities IAW AFI 31-101, *Air Force Installation Security Program*. Units will establish a resource protection program that meets Department of Defense (DOD) and Air Force protection criteria IAW AFI 31-101.

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

3.11.2. (ACC) Keep pyrotechnic storage in aircrew life support facilities to a minimum. In order to simplify storage, control, and handling procedures, it is recommended that all flares be maintained in the base munitions storage area and obtained on an "as-required" basis to support time-change and inspection requirements. Additionally AFI 31-101 (FOUO), *The Air Force Installation Security Program*, will be consulted.

3.11.3. ALS sections storing firearms will ensure facilities are maintained IAW AFI 31-101.

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

3.11.5. Units will maintain classified material consistent with AFI 33-211, *Communications Security (COMSEC) User Requirements*.

3.12. Safety:

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

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

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

3.12.4. Supervisors must develop a safety, fire protection, and health on-the-job training program as outlined in AFI 91-301, Attachment 5.

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

3.13. Hazardous Communications (HAZCOM) Program:

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

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

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

3.14. Explosive Safety:

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

3.15. Composite Tool Kit (CTK) Program. The objectives of the CTK program are elimination of foreign object damage (FOD) to aircraft and to reduce tool cost through effective control of assets.

3.15.1. Establish a CTK and lost tool procedure program to control and account for tools utilized by ALS in each ALS and flight line section IAW AFI 21-101, *Aerospace Equipment Maintenance Management*, AFMAN 23-110, Vol 2, Part 13, Chapter 8, MAJCOM, and wing/unit directives.

3.15.1. (ACC) All work centers with the potential for tool migration to the flightline will use the Tool Accountability System (TAS) as per AFI 21-101_ACC SUP 1.

3.15.1. (SEYMOUR JOHNSON) IAW AFI 21-101_ACC Sup 1, squadron NCOIC will ensure CTK tools are engraved/etched with the following nine-digit identification number:

SM = Seymour Johnson

G = Ops Group

L, E, C, or R = Lancers, Eagles, Chiefs, or Rockets

LS = Life Support

= Must be a three-digit number indicating the CTK's number.

3.15.1.1. (Added-SEYMOUR JOHNSON) For extra accountability a dash and tool control number can go after the nine-digit CTK number. Example for each life support section:

3.15.1.1.1. (Added-SEYMOUR JOHNSON) 333 FS = SMGLLS###-01

3.15.1.1.2. (Added-SEYMOUR JOHNSON) 334 FS = SMGELS###-01

3.15.1.1.3. (Added-SEYMOUR JOHNSON) 335 FS = SMGCLS###-01

3.15.1.1.4. (Added-SEYMOUR JOHNSON) 336 FS = SMGRLS###-01

3.15.2. (Added-ACC) Inventory dispatchable CTKs prior to departing and returning to the Life Support section as well as before and after each aircraft inspection.

3.15.2.1. **(Added-ACC)** Life support CTKs utilized for chute/kit inspection and removal/install may be designated as special purpose CTKs.

3.15.3. **(Added-ACC)** Units will develop local tracking procedures to track quantity of serviceable/unserviceable CRU-94, CRU-120, or CRU-60/P oxygen connectors dispatched to and from the flight line.

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

3.17. Operational Risk Management (ORM). The LSOs, LSS and the ALS section NCOICs will ensure ORM or other risk management programs and techniques are fully implemented.

3.18. USAF Aircrew Life Support Awards Program:

3.18.1. Individual Award. These awards are established to recognize outstanding individual accomplishments and enhance the visibility of ALS personnel. Each calendar year, one MAJCOM staff member, life support officer, senior NCO, NCO, airman, and civilian will be recognized for outstanding performance and initiative.

3.18.1. **(SEYMOUR JOHNSON)** Airman/NCO/SNCO/LSO of the Year. These awards are presented annually to a 4 OG Life Support technician in the grades AB through SrA, SSgt through TSgt, MSgt and LSO respectively. Selection is based on recommendations from unit commanders, Life Support officers, and NCOICs. Selection criteria will be IAW AFI 11-301, para **3.18**. Awards packages will be submitted IAW AFI 36-2807 and received by 4 OG/CCA NLT 15 Dec. The LSS/Group LSO will convene a panel to determine the winner in each category. The winners will then be submitted to HQ ACC by 4 OG/CC.

3.18.2. Unit Award. This MAJCOM level award is established to recognize outstanding unit accomplishments and enhance the visibility of the unit's ALS program. Each calendar year, one operations group ALS program is recognized for outstanding performance and initiative.

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

3.18.4. Once MAJCOM and ANG winners have been selected, nominees for Air Force-level awards will follow the same procedures as stated in paragraph **3.18.3.**, submitting nominees to HQ USAF/XOOP.

3.19. Automated Life Support Management Systems (ALSMS). ALSMS is a management tool for use by ALS personnel. Units are authorized to use ALSMS to best suit their needs. Units tracking equipment with the ALSMS program are not required to duplicate the data maintained in the computer on status boards, shop inspection cards, or forms. LSSs will standardize equipment tracking methods within their respective groups.

3.19. (ACC) Automated Life Support Management Systems (ALSMS). Back up ALSMS weekly if used.

3.19.1. **Aircrew Life Support Equipment Record and Tracking System (ALERTS).** Air Mobility Command is the MAJCOM responsible for the development and certification of the ALERTS program. Once certified, this program will serve as a replacement for ALSMS for all USAF ALS functions.

3.20. Core Automated Maintenance System (CAMS)/G081. Automatic tracking systems (i.e., CAMS, G081, etc.) will be used as directed by technical order and MAJCOM guidance.

3.20. (ACC) Core Automated Maintenance System (CAMS)/G081. Life Support is responsible for updating CAMS entries relating to the routine inspection, installation, and removal of aircraft installed/integrated aircrew life support equipment and related time change components. Reference AFI 21-101.

3.20.1. **(Added-SEYMOUR JOHNSON)** Squadron ALS sections will provide their respective maintenance scheduling sections with a list of parachute/survival kit inspections. This list will be provided NLT Monday 1200 hours for inspections due the following week.

3.20.2. **(Added-SEYMOUR JOHNSON)** Maintenance schedulers will schedule parachute/survival kit inspections.

3.20.3. **(Added-SEYMOUR JOHNSON)** ALS is core manned for a single shift during peacetime operations. Due to the limited number of life support technicians available to support inspections of life support equipment, the following conditions are established:

3.20.4. **(Added-SEYMOUR JOHNSON)** Inspections will be scheduled for completion Monday through Friday.

3.20.5. **(Added-SEYMOUR JOHNSON)** Whenever possible each inspection will be scheduled to be accomplished during scheduled flying hours.

3.20.6. **(Added-SEYMOUR JOHNSON)** Squadron ALS and maintenance supervision will coordinate to ensure ALS technicians have access to aircraft during the normal duty day (e.g. first take-off to last take-off of the flying day) to assure timely accomplishment of ALS equipment inspections.

3.20.7. **(Added-SEYMOUR JOHNSON)** Squadron ALS technicians will coordinate all on-aircraft work with the expediter prior to beginning any task.

3.20.8. **(Added-SEYMOUR JOHNSON)** Squadron ALS sections will report job completion to the expediter.

Chapter 4

TECHNICIAN TRAINING

4.1. Purpose. The purpose of this chapter is to establish minimum training requirements for ALS personnel and provide guidance on conducting ALS on-the-job training (OJT) programs.

4.1.1. **ALS Technician Training.** ALS training is an instructional process that leads to task qualification through technician continuation training or upgrade and qualification training conducted IAW AFI 36-2201, *Developing, Managing, and Conducting Training*, AFSC IT1X1 CFETP, and **Table 4.1** of this instruction. The training program must ensure ALS personnel, both military and civilian, become and remain task qualified. The documentation of training is paramount to the success of the training program.

4.2. Responsibilities:

4.2.1. LSS:

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

4.2.1.1. **(ACC)** Master Training Plan will include an upgrade and qualification timeline for each skill level.

4.2.1.2. Identify all mission related training requirements to meet MDS-specific and ancillary unit needs for wartime and peacetime operations using AFSC IT1X1 CFETP, Attachment 3.

4.2.1.3. **(Added-ACC)** Ensure LSOs and personnel qualified to conduct aircrew life support continuation training are certified initially and recertified at least every 18 months. Certification and documentation for enlisted instructors will be IAW AFI 36-2201. Documentation of LSO certifications will be by memorandum signed by the operations group commander.

4.2.2. NCOICs:

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

4.2.2.2. Certify or decertify trainees on task qualifications.

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

4.2.2.4. Evaluate all technical school graduates (AFSC IT131) to ensure proficiency levels as specified in the approved CFETP.

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

4.2.2.6. Plan, schedule, evaluate and administer training.

4.2.2.7. Counsel trainees and take administrative actions as necessary.

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

4.2.2.9. Maintain an OJT record for technicians IAW AFI 36-2201.

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

4.2.3. Task Certifier:

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

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

4.2.3.3. Recertify all newly assigned personnel, both military and civilian, in previously certified areas.

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

4.2.3.4. **(ACC)** Question and answer sessions do not qualify as a task evaluation.

4.2.4. Trainer:

4.2.4.1. **ALS Trainers.** ALS trainers are experienced 5-skill level technicians who have completed the Air Force Training Course (J6AJI3S2X1 001) or the Training the Trainer Course (J6AJS3S2X1 001).

4.2.4.2. ALS trainers must be qualified on the tasks they instruct.

4.2.4.3. ALS trainers will document training as appropriate IAW current CFETP and AFI 36-2201.

4.2.4.3. **(ACC)** Trainer will annotate trainee progress weekly and document on AF IMT 623A, **On-The-Job Training Record Continuation Sheet**. This includes all personnel in upgrade training and newly assigned personnel who require training on specific MDS tasks. AFRC units will document trainee progress monthly.

4.2.5. Trainee:

4.2.5.1. Trainees must actively participate in opportunities for qualification and skill-level upgrade training (UGT).

4.2.5.2. Trainees must progress to and maintain knowledge, qualifications and appropriate skill-level within their assigned specialty.

4.2.5.3. Schedule their on and off duty time to complete upgrade Career Development Course (CDC) and self-training requirements.

4.2.6. **(Added-ACC)** Red X Certification Process. As a minimum, the LSS, squadron NCOIC, and all 7-level personnel will be Red X certified for applicable MDS's.

4.2.6.1. **(Added-ACC)** Individuals certified to sign off Red X inspections on aircraft forms must be trained by the NCOIC or assistant and certified by the LSS. All requirements of paragraphs **3.7.6. (Added)** and **3.7.7. (Added)** must be fulfilled prior to certification. See AFI/ACCI 21-112

for ejection seat parachute and survival kit removal and installation certification procedures. Review and be familiar with T.O. 00-20-1, Aerospace Equipment Maintenance Inspection, Documentation, Policies and Procedures.

4.2.6.1.1. **(Added-SEYMOUR JOHNSON)** Stand-by Operations. All five and seven-level technicians, E-1 through E-6 are eligible for stand-by. LSS will publish a letter assigning stand-by duties to each squadron. NCOIC will assign personnel to stand-by duty as required. Coordinate all changes with the LSS. NCOIC will distribute a copy of the squadron stand-by roster to Maintenance Operations Center (MOC). NCOIC should assign three-level personnel to assist a five-level for stand-by training. Only fully qualified life support personnel are assigned to stand-by duty and at least one "Red X" certified individual will be on stand-by at all times. If the standby roster is changed, the appropriate NCOIC is responsible for notifying the LSS and MOC.

4.2.6.1.2. **(Added-SEYMOUR JOHNSON)** Technicians assigned to stand-by duty are responsible for being readily available for recall. The technicians will monitor wing life support provided cell phone at all times. If the cell phone is not available, the technician must inform MOC of an alternate means of contact, i.e. telephone number at the technician's location. Stand-by personnel will notify the NCOIC and/or LSS as soon as possible if it appears the workload cannot be handled by those performing stand-by duties.

4.2.6.1.3. **(Added-SEYMOUR JOHNSON)** Stand-by duty will start at 0730 hours on Friday and end the following Friday at 0729 hours.

4.2.6.1.4. **(Added-SEYMOUR JOHNSON)** Stand-by personnel will immediately inform NCOIC in the event of physiological incidents. NCOIC will notify the wing LSO or LSS and the Wing Flight Safety Officer on-call by the next duty day.

4.2.6.1.5. **(Added-SEYMOUR JOHNSON)** Personnel on stand-by duty will not consume alcoholic beverages.

4.2.6.1.6. **(Added-SEYMOUR JOHNSON)** Inadvertent Beacon Activation Location Procedures. MOC contacts all life support sections or the stand-by individual after duty hours to check for inadvertent beacon activation. Use the beacon finder to scan the flight line, life support sections, egress and the survival equipment element. Document all beacon activations to assist in trend analysis and prevention.

4.2.6.2. **(Added-ACC)** LSS will ensure proper routing/process the ACC IMT 64 and monitor quarterly.

4.2.6.2.1. **(Added-ACC)** Individual being certified will sign Part IV, NCOIC will sign as the section chief, the LSS or LSO will sign as the flight chief, finally the squadron commander or operations group commander will sign the maintenance supervision section, dependent upon specific unit requirements.

4.2.6.2.2. **(Added-ACC)** The maintenance group commander can authorize selected 5-skill level personnel, in the rank of SrA or higher, for tasks normally requiring 7-skill level requirement to facilitate the production effort. Waived 5-skill level personnel should be closely monitored and kept to the minimum required to accomplish the maintenance mission. File copies of approved waivers must be maintained by the NCOIC and LSS. Contact supporting records

manager to ensure required records' retention and disposition. The maintenance group commander is the waiver granting authority for selected 5-level personnel.

Table 4.1. ALS PERSONNEL TRAINING REQUIREMENTS.

NOTE: Lists all Air Force ALS mandatory and desirable training. MAJCOMs will supplement this table with their unique requirements.

COURSE TITLE	1T131	1T151	1T171	1T191	ALSCTI	T1T1X1	LSO
Aircrew Life Support Apprentice, J3ABR1T131 003	M						
Aircrew Life Support Craftsman, J3ACR1T171 001			M				
Combat Survival Training, S-V80-A (Notes 5 & 6)	D	D	D	D	M	M	M
Water Survival School – Parachuting, S-V86-A (Notes 1, 5, & 6)	D	D	D	D	M	M	M
Arctic Survival Training, S-V87-A	D	D	D	D	D	D	D
Water Survival School – Non-parachuting, S-V90-A (Note 6)	D	D	D	D	M	M	M
Maintenance of Night Vision Goggles, J4AST1T151 002 (Note 3)	D	D	D	D	D	D	D
Maintenance of Night Vision Devices, J4AZT1T151 002 (Note 3)	D	D	D	D	D	D	D
Academic Instructor Course, MAIS001 (Note 4)				D	M	M	
Night Vision Goggles Instructor Course (Note 6)					M	M	
Contingency Wartime Planning Course, MCADRE002			D	D			
Introduction to Personnel Recovery, PR101			D	D	D	D	D
USAF Life Sciences Equipment Investigation Course, S-V8G-C			D	M	D	M	
Physiological Training (Notes 2 & 7)	D	D	D	D	M	M	M
Airborne (Parachutist), L5AZA1T231 001	D	D	D	D	D	D	
USAF Underwater Egress Training, S-V84-A (Note 8)	D	D	D	D	D	D	D
Emergency Medical Technician					D	D	

COURSE TITLE	1T131	1T151	1T171	1T191	ALSCTI	T1T1X1	LSO
Water Safety Instructor Training					D	D	
ACC Code of Conduct Training Course, Y120005					D	D	
ACC Aircrew Protection Instructor Course, Y120006			D	D	D	D	D
ACC Aircrew Life Support Program Managers Course, Y120004			D	D			D
USAF Aircrew Life Support Officer, S-V8G-A							M

LEGEND: M = Mandatory; D = Desirable

NOTES:

1. This course may be substituted with course S-V90-A, Water Survival Training, Non-parachuting.
2. Physiological Training is required initially and a MDS specific refresher every 5 years thereafter for enlisted ALSCTIs. Refer to AFI 11-403.
3. These mobile training team courses are for personnel performing maintenance on night vision systems (NVS). As a minimum, one technician will be trained and certified through an AETC approved course, by an AETC certified instructor, or directly by manufacturer or their certified instructor, and will train other personnel upon completion.
4. Completion of Principles of Instruction (J3AZR3S200 011 or J3AZT3S200 011), or ACC Classroom Instructor Course (Y120022) satisfies this requirement.
5. Required for personnel assigned to AFSOC or overseas units.
6. Required for personnel teaching VV-01.
7. MAJCOM Functional Managers may waive this requirement based on training capability.
8. This course only applies to instructors who train aircrew operating helicopters.

Chapter 5

AIRCREW LIFE SUPPORT CONTINUATION TRAINING (ALSCT)

5.1. Purpose. ALSCT consists of ground training events (not ancillary training) listed in **Table 5.1.** of this instruction and is provided for each aircrew member, designated non-rated personnel, and passengers to refresh and enhance their proficiency and knowledge in all ALSCT events. This chapter establishes specific requirements and applies to all ALSCT Instructors (ALSCTI), aircrew and personnel who fly. “Hands-on training” using training equipment configured to mirror operational equipment, to the maximum extent possible, is the standard method for developing aircrew proficiency.

5.2. Responsibilities:

5.2.1. ALSCT will be conducted IAW **Table 5.1.** of this instruction. MAJCOMs will supplement this instruction to tailor ALSCT courses to fulfill their specific requirements. MAJCOMs will update their lesson plans based on current safety information provided by the Air Force Safety Center.

5.2.2. ALSCT instructors may be an LSO, instructor aircrew, or ALS training instructor. MAJCOMs will supplement this instruction with requirements for assigning and certifying ALSCT instructors.

5.2.3. **(Added-ACC)** LSO/LSS contact the Survival Evasion Resistance and Escape (SERE) Functional Managers at HQ ACC/DOTO if locally assigned SERE personnel are not available to instruct Combat Survival Training (CST), Conduct After Capture (CAC) training, Water Survival Training (WST), Emergency Parachuting Techniques (EPT), or Local Area Survival (LAS) training. Not applicable to AFRC.

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

5.3.1. Life Support Familiarization Training (LSFT) (LL01) (previously Local Area Survival Training, LS01): One time event, per base assignment, conducted prior to the first flight at home station to familiarize aircrew members with local ALS equipment availability, issue, use, pre-flight, and post-flight procedures. This training will be provided for subsequent re-assignments to the same base.

5.3.2. Emergency Egress Training, Ejection Seat (LL02) (formerly LS07): Evaluates aircrew and passenger ability to demonstrate proficiency in air and ground emergency egress/ejection procedures. In aircraft with multi-crew ejection seat capability, stress importance of aircrew coordination actions in emergency situations. Ensure aircrews are aware of their responsibilities for conducting safety and passenger briefings IAW AFI 11-202, Volume 3, *General Flight Rules*.

5.3.3. Emergency Egress Training, Non-Ejection (LL03) (formerly LS08): Evaluates aircrew and passenger ability to demonstrate proficiency in air and ground emergency egress procedures. Stress the importance of aircrew coordination, aircrew and passenger responsibilities and use of appropriate emergency egress equipment. Ensure aircrews are aware of their responsibilities for conducting safety and passenger briefings IAW AFI 11-202, Vol 3.

5.3.4. Aircrew Chemical Defense Training (ACDT) (LL04) (formerly LS04): An academic and equipment training session in which the aircrew member demonstrates and performs donning, doffing, buddy dressing procedures using either the first or second generation ACDE or aircrew eye/respiratory protection (AERP) equipment. This training also includes information on hazards and limitations of wearing the equipment properly and improperly, preflight procedures, aircraft integration, and parachute descent emergency procedures. Each aircrew will demonstrate procedures during their initial class; subsequent classes require a minimum of 10% of aircrew participants to dress out and demonstrate aircrew contamination control area (ACCA) processing procedures.

5.3.5. Egress Training with ACDE (LL05) (formerly LS05): Evaluates the aircrew's ability to demonstrate proficiency in the use of primary as well as secondary air and ground egress procedures while wearing ACDE. Training will stress the unique changes in procedures to include added difficulties aircrew would and could experience as a result of wearing ACDE.

5.3.6. Aircrew Life Support Equipment (ALSE) Training (LL06) (formerly LS06): An academic and equipment training event, in which aircrew members demonstrate their ability to locate, preflight, and use all aircrew and passenger ALSE carried aboard unit aircraft or issued to aircrew members. This training includes the limitations and safety issues related to ALSE. Additionally, include aircrew clothing items and information on hazards associated with improper wear and failure to use only authorized clothing and equipment items.

5.3.6. (ACC) Brief proper wear and fit of ALS equipment to ensure aircrew are aware of their responsibilities IAW paragraph 2.15.8. (Added) of this supplement. Ensure local instructor guides and lesson plans are documented appropriately to reflect this requirement.

5.3.7. Former ALSCT courses (LS02) High Threat Combat Survival Training (CST); (LS03) Water Survival Training (WST); (LS09) Hanging Harness Training (HHT), Ejection; (LS10) HHT, Non-Ejection; (LS11) Low Threat CST; and (LS13) Helicopter Emergency Egress Training requirements and identifiers are included in AFI 16-1301, *Survival Evasion Resistance Escape (SERE) Operations* (forthcoming). LS02 and LS11 are combined as SS02, Combat Survival Training (CST). LS03 is now SS05, Water Survival Training (WST). SS05 also incorporates LS13 as required by unit type. LS09 and LS10 are incorporated as SS06, Emergency Parachute Training (EPT).

5.4. Formal Training Requirements:

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

5.4.2. All ALSCTI must meet the minimum formal training requirements contained in [Table 4.1.](#) of this instruction and be assigned using guidelines established by respective MAJCOMs.

5.4.3. To obtain formal course allocations for ALS personnel, forward the full name, rank, social security account number (SSAN), and organization of personnel requiring training to the appropriate MAJCOM ALS focal point at least 60 days in advance of the requested training date. AFRC and ANG will request quotas IAW AFRC and ANG procedures.

5.4.4. The group LSO or LSS will control and manage the wing's ALS related formal course allocations. Cancellations or substitutions will be accomplished by contacting the appropriate MAJCOM or ANG ALS focal point not later than 30 days prior to class start date. Return all allocations that cannot be used to the appropriate MAJCOM or ANG ALS focal point for redistribution at least 30 days prior to class start date.

5.5. ALSCT Requirements:

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

5.5.2. Failure to accomplish ALSCT at the required intervals will result in grounding or non-combat mission ready status as outlined in the respective AFI 11-2MDS-series, Vol 1 instructions. If an aircrew member is deploying TDY to perform flying duties at a location where a training capability does not exist, the required training must be accomplished prior to home station departure. If an aircrew member is deployed past their training currency date, they must receive training in the grounding events prior to first flight at home station.

5.5.2. **(SEYMOUR JOHNSON)** All ALSCT will be formally scheduled by each squadron. This training will be monitored by each squadron's LSO and ground training officers. HARM product will be the primary source documentation for all recurring ALSCT. Squadron LSOs will coordinate with schedulers to ensure training requirements compliance. Squadron LSOs will screen records of newly assigned personnel.

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

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

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

5.5.5. **(ACC)** If not covered by specific MDS guidance, flight surgeons will receive egress once every 60 days on primary assigned aircraft. The operations group LSO may waive this requirement up to 180 days for those flight surgeons who demonstrate proficiency in the aircraft on a case-by-case basis. AFRC units will get OG/CC approval for this waiver.

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

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

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

5.5.8. **(SEYMOUR JOHNSON)** Student aircrew members assigned to FTUs will receive egress training every 60 days. The operations group LSO may waive this requirement up to 90 days for those students who demonstrate proficiency in the aircraft on a case-by-case basis.

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

5.5.10. Initial and periodic ACDE training will be conducted IAW appropriate 11-2MDS-series, Vol 1 publications, this instruction, applicable T.O.s and approved instructor guides.

5.5.11. An aircrew member may be credited with ACDT (LL04) during local operational readiness exercises provided all ALSCT requirements and objectives are satisfied.

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

5.6.1. The group LSO or LSS, with assistance from the local safety office, will ensure Operational Risk Management (ORM) or other risk management programs or techniques is fully implemented, documented in unit instructor guides (IG) or lesson plans (LP), and tailored to their specific operation and location for all ALSCT events.

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

5.7. Passenger and Incentive Flyer Training:

5.7.1. Passengers scheduled for flight aboard ejection seat equipped aircraft will receive, as a minimum, egress, PDT, and ALSE training no earlier than 72 hours prior to flight. If the 72 hours are exceeded before flight, training will be re-accomplished. Egress includes manual bailout procedures training, if applicable.

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

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

5.7.2. **(ACC)** These individuals, to include members in casual status awaiting pilot training, aerospace physiologist, flying maintenance personnel, intelligence personnel (AFSC 1NX00), and developmental/test engineers may be placed on a 60-day currency after meeting the following requirements. Members must first complete egress and parachute descent class applicable to the MDS a minimum of three times during a 60-day period. Member must complete life support equipment training. After the above two conditions are met, the LSO will evaluate/validate the member's proficiency and forward a memorandum to the OG/CC recommending the member be placed on a 60-day currency for the MDS specific egress and parachute descent training. The OG/CC will be the approval authority for the 60-day currency.

5.7.2.1. **(Added-ACC)** Emergency Parachute Training requirements (formally known as parachute descent or hanging harness training) will defer to the forthcoming AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program*, once published.

5.7.3. Passengers scheduled for flight aboard non-ejection seat equipped aircraft will be briefed on emergency procedures and ALSE as depicted in appropriate aircraft passenger briefing guides. The aircraft commander or their designated representative may conduct this briefing.

5.7.4. **(Added-ACC)** For taxi rides, see ACCI 11-450, *Orientation Flight Program*.

5.8. Training Documentation:

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

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

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

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

5.8.5. ALS is not responsible for maintaining AFORMS or managing and tracking aircrew training status for ALSCT events in AFORMS.

5.9. Training Aids and Equipment:

5.9.1. Emergency ground and air egress and ejection seat training will be accomplished using the appropriate Egress Procedures Trainer (EPT) or the aircraft. Non-ejection seat egress training will be conducted using actual aircraft to the maximum extent possible.

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

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

5.9.4. ALSCTIs will inspect training devices and aids prior to use to ensure they are properly configured and operational for training. The LSS or their designated representative will perform semi-annual inspections of all training devices and aids to ensure they are current and safe for training use. This includes displays, EPTs, PDT devices, ACDE, ALSE, personnel lowering devices, and water survival equipment. Inspections will be documented appropriately.

5.9.4. **(ACC)** All ejection seat procedural trainer inspections (prior to use, semi-annual) will be documented on AF IMT 781 or equivalent.

5.9.5. Training equipment, to include PDT and EPT devices, will mirror operational equipment to the maximum extent possible. Equipment used for training will be clearly marked "FOR TRAINING USE ONLY" and stored to prevent co-mingling with operational equipment. When training equipment does not exist (i.e., night vision devices, PRC-112 series radios, etc.), MAJCOMs may designate the use of operational equipment for training as long as the training does not damage or destroy the integrity of the equipment.

5.9.5. **(ACC)** PRC-112 series survival radios and NVG's may be used for training as long as the training does not damage or destroy the integrity of the equipment. For those AFRC units who do not have dedicated AERP training assets, operational assets may be used. If an operational asset is utilized

for training, inspect at intervals IAW governing Technical Orders. Other operational assets deemed necessary for training use, will be authorized only by the respective MAJCOM. Items must be inspected immediately after completion of training to ensure serviceability and extreme care is given to these valuable assets during the training class.

5.10. Instructor Guides and Lesson Plans:

5.10.1. ALSCT Instructor Guides (IG). IGs are documents developed to prescribe instructional requirements, teaching points, and instructor-student activities essential to the accomplishment of training objectives. IGs are designed to include the minimum training requirements and are essential for supervisors and instructors to ensure lesson objectives are completed.

5.10.2. Only approved IGs developed by the MAJCOMs and the 436th Training Squadron Aircrew Life Support Section, Dyess AFB, Texas will be used to conduct ALSCT. The IGs developed by the 436 TS are complete and ready to use by the units once they have been approved by the lead MDS MAJCOM. Units should delete information from the IGs that do not pertain to their mission. MAJCOMs will use, to the maximum extent possible, IGs developed by the 436 TS. IGs not developed by the 436 TS will be developed by the MAJCOM. MAJCOMs can request the 436 TS to develop an IG; if approved, the MAJCOM will provide necessary funding. Approved IGs are available at:

<https://wwwmil.dyess.af.mil/436ts/lifesupport.htm>.

5.10.3. ALSCT LP. Lesson plans are documents developed and prepared for use by instructors to organize and present information. This is accomplished by writing a separate document with personal instructional notes and material. The lesson plan must be validated with approved reference materials that can be produced upon request.

5.10.4. The group LSO or LSS must produce standardized lesson plans for use by all ALSCTIs if no IG is available. Units will forward a copy of each lesson plan used to their MAJCOM for review and approval prior to publication and use.

5.10.5. All IGs and locally prepared lesson plans used in the conduct of ALSCT will be reviewed annually by the group LSO or LSS. Annual reviews will be documented appropriately.

5.10.6. Higher headquarters correspondence (e.g., messages, flight crew information files [FCIF], etc.) directing the inclusion of information not covered in ALSCT IGs or lesson plans will be added as directed.

Table 5.1. ALSCT REQUIREMENTS.

A FORMS Identifier	Course Title	Event Frequency
LL01	Life Support Familiarization Training (LSFT)	Initial (Note 1)
LL02	Emergency Egress Training, Ejection Seat	(Note 5)
LL03	Emergency Egress Training, Non-Ejection Seat	(Note 5)
LL04	Aircrew Chemical Defense Training (ACDT)	(Note 5)
LL05	Egress Training with ACDE	Initial (Note 2)
LL06	Aircrew Life Support Equipment (ALSE) Training	(Note 5)

NOTES:

1. Accomplished before first flight at unit of assignment.
2. Must be accomplished one time in assigned MDS aircraft before first flight using ACDE.
3. Grounding items: LL01, LL02, and LL03.
4. ALSCT courses may be combined as long as all required training is accomplished.
5. Training frequencies are identified in AFI 11-202, Volume 1, *Aircrew Training*, and AFI 11-2MDS-series, Vol 1.

5.11. (Added-ACC) ALSCTI Certification and Recertification Procedures:

5.11.1. **(Added-ACC)** The group LSO and LSS will be certified in writing by the operations group commander (or equivalent) to conduct ALSCT.

5.11.2. **(Added-ACC)** All other ALSCT instructors (officer, enlisted, civilian) must be certified by the operations group LSO or LSS to conduct any portion of ALSCT to include egress training. ALSTIs are certified only after successfully completing the instructor qualification training and certification requirements of this instruction. AFRC unit ALSCTIs will be certified by the group or squadron LSO/NCOIC.

5.11.3. **(Added-ACC)** As a minimum, qualification training will include attendance at applicable courses specified as mandatory in AFI 11-301, **Table 4.1.**, and an evaluation by the LSO or LSS of a "start-to-finish" presentation of each event or specific area of an event to be certified to conduct. This includes all instructional materials and procedures for the event or specific area to be certified. Officers who instruct are not required to attend AIC or equivalent. ANG waiver is applicable to those that meet criteria set forth in the waiver.

5.12. (Added-ACC) ALSCTI Certification. The operations group LSO or LSS will certify each ALSCTI initially and every 18 months thereafter. The LSO or LSS will use the appropriate IGs or lesson plan to perform instructor evaluations.

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

5.13. (Added-ACC) ALSTI Augmentation. ALS personnel who have not attended required formal schools identified in this instruction may augment certified ALSCTIs.

5.14. (Added-ACC) ALCTI. Enlisted and civilian instructor certifications will be documented on AF IMT 1098 or equivalent electronic tracking system IAW AFI 36-2201 and maintained in the individual's OJT record. Documentation of LSO and qualified aircrew member certifications to conduct ALSCT will be by a memorandum signed by the operations group LSO or LSS.

5.14.1. **(Added-ACC)** Document all instructor evaluations (enlisted, officer, civilian) on ACC IMT 261, **Instructor Evaluation Checklist.**

Chapter 6

AIRCREW CLOTHING AND EQUIPMENT

6.1. Purpose. This chapter establishes minimum aircrew clothing requirement, defines who may wear the MC-1 knife and when, and outlines minimum requirements for maintenance and inspection of aircrew life support equipment (ALSE).

NOTE: Members of the USAF Aerial Demonstration Squadron are exempt from the provisions of this chapter except for the wear of fire retardant clothing.

6.2. Minimum Clothing Requirements. MAJCOMs, ANG and FOAs will comply with the following, unless MAJCOM directives specifically waive the unit from the following clothing requirements.

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

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

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

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

6.2.4. (ACC) All aircrew members are required to wear Nomex flight gloves during critical phases of flight and as deemed necessary by the aircraft commander. Critical phases of flight is defined as engine starts, takeoffs, landings, airdrops, and emergencies except where flight gloves hinder completion of required actions. Because of the inherent protection afforded, crewmembers are encouraged to wear gloves at all times in the aircraft. Gloves will not have the fingers exposed or modified in any manner.

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

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

6.3. MC-1 Survival Knife. Any USAF aircrew member may wear the MC-1 knife for flying duties as long as it remains on the flight uniform.

6.3. (ACC) MC-1 Survival Knife. A MC-1 knife or riser cutter will be positioned or carried where readily available during parachute descent.

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

6.3.2. Action in Case of Civil Apprehension. If a civil officer arrests an aircrew member who is wearing the survival knife as part of the flight uniform, the aircrew member will take the following action:

6.3.2.1. Do not resist apprehension. Comply with the civil officer's instructions.

6.3.2.2. Explain to the civil officer that the knife is part of their authorized flight uniform.

6.3.2.3. Notify the nearest Chief of United States Military Security Forces, who in-turn contacts the Staff Judge Advocate (SJA) of the nearest military installation. The SJA, in turn, reports the incident to HQ USAF.

6.4. ALSE Requirements. Only ALSE approved as safe-to-fly will be issued, worn, installed or used for flight operations. All ALSE will be sized, fitted, issued, inspected, maintained, modified, controlled and stored IAW applicable Technical Order (T.O.) guidance, approved commercial manuals, and applicable MAJCOM directives. The following specific guidance applies:

6.4.1. Aircrew helmets will be used as required and inspected and maintained IAW applicable 14P-series T.O.s.

6.4.1.1. All aircrew helmets will be subdued factory gray or blended to match the aircraft color scheme so as not to contrast or brightly reflect off inside of the canopy or cockpit glass. Subduing can be accomplished by application of paint or taping of helmet shells to blend with the aircraft exterior color. Subdued method is at the discretion of the unit commander. BFT, FTU students, and units without a mobility commitment are exempt from this requirement.

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

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

6.4.1.4. **(Added-ACC)** Helmets will be stored in the life support shop when they are not required for flight.

6.4.2. Helmets mounted devices (Joint Helmet Mounted Cueing System [JHMCS], NVGs, Nuclear Flashblindness Goggles, Laser Eye Protection & High Contrast Visors) will only be worn or used by

aircrew members requiring them to perform specific missions. Inspection and maintenance of these devices will be accomplished IAW appropriate T.O.s and MAJCOM guidance.

6.4.2. **(ACC)** High Contrast Visors (HCV) and ALEP devices are approved for use in those aircraft listed in the 14P3 series technical orders and the forthcoming AFI 11-301V4 respectively. HCVs are for day time use only. Additionally, HCVs and ALEP devices are only authorized for use by aircrew members who have normal color vision validated by the unit flight surgeon. ALS personnel will maintain a list of aircrews authorized by the flight surgeon to wear HCVs and ALEP devices.

6.4.2.1. ALS technicians will perform operational and intermediate level maintenance on aviators NVGs. Additionally, ALS personnel are responsible for issuing, fitting, inspection, maintenance, and storage of aviators NVGs only.

6.4.2.1. **(ACC)** ALS technicians will have their vision initially validated by the flight surgeon or optometry clinic to ensure they meet visual requirements (corrected to 20/20) for maintaining NVGs. Ensure documentation is in members' medical records.

6.4.2.2. Where applicable, squadron commanders will ensure an area is designated for use by aircrew members to perform NVG preflight operations.

6.4.2.2.1. **(Added-ACC)** NVGs will be issued to aircrew members using an appropriate tracking system. Minimum items to be tracked: Name of aviator, local # of NVG, date signed out/in.

6.4.2.2.2. **(Added-ACC)** Units will place an inspection due date label on one of the NVG monocular housings or pivot and adjustment shelf (PAS).

6.4.2.3. Inspect thermal flash blindness devices.

6.4.3. Global Positioning System Receivers. Inspect and configure IAW appropriate T.O.s and MAJCOM, Special Instruction (SPIN) notices, and theater guidance.

6.4.3. **(ACC)** The command standard GPS receiver is the Garmin GPS 12, or 12XL, ETREX (trademarks of Garmin) or equivalent. This receiver is an authorized optional survival vest component. GPS receivers are commercially procured items for use in the CONUS and will be inspected, repaired, and maintained IAW the owner's manual and **Attachment 2 (Added)** of this supplement.

6.4.3.1. **(Added-ACC)** Secure GPS receivers to survival vests using a 30-36 inch length of 100 lb olive drab cord. Install an operational set and a minimum of two spare sets of batteries in the vest. Annotate GPS serial number on vest inspection card.

6.4.3.2. **(Added-ACC)** Establish procedures to ensure pilferable assets such as GPS, ALEP, and Monocular NVDs are controlled and safeguarded against damage, loss, or theft. Maintain a list of serial numbers in Tab B of the CA/CRL.

6.4.4. Anti-G Garments are required during all flights in aircraft equipped with anti-G systems when 2 or more "Gs" are anticipated.

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

6.4.4.2. Combined Advanced Technology Enhanced Designed "G" Ensemble (COMBAT EDGE). The wear of COMBAT EDGE is required on all flights where 6 Gs or more is

pre-planned or anticipated and assigned aircraft are appropriately modified to accommodate COMBAT EDGE equipment. The CRU-94/P oxygen connector will be used in all equipment configurations with the exception of real world chemical flights that require the use of the ACDE or AERP.

6.4.4.2. **(ACC)** The CRU-120/P oxygen connector will be utilized on F-16 aircraft modified with the On Board Oxygen Generation System (OBOGS).

6.4.5. Anti-Exposure Suits. Only authorized and approved anti-exposure suits will be worn by aircrews and passengers.

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

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

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

6.4.5.2.2. Operational requirements.

6.4.5.2.3. Number and type of aircraft participating in sortie.

6.4.5.2.4. Time of flight over water.

6.4.5.2.5. Distance from land.

6.4.5.2.6. Mission altitude.

6.4.5.2.7. Risk based on type of sortie.

6.4.5.2.8. Degree of surveillance over the mission area.

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

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

6.4.5.3. **(Added-ACC)** After considering the factors listed in paragraph 6.4.5.2. of AFI 11-301, the OG/CC may waive the requirement of wearing the anti-exposure suit at units with an alert commitment if time to don the suit precludes meeting take off times.

6.4.5.4. **(Added-ACC)** For multi-place bomber aircraft, the OG/CC will specifically address the requirements for wear of anti-exposure suits based on unique weapons system mission requirements in their wing life support supplement.

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

6.4.7. Life Preserver Units (LPU) will be worn on all overwater to include cross-country flights by aircrew members and passengers of ejection seat and single engine aircraft. Designated life preservers will be readily available during all overwater flights on multiplace aircraft.

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

6.4.8. **(SEYMOUR JOHNSON)** Survival radios will be packed into survival kits and vests with volume adjustment set to the lowest audible setting.

6.4.8.1. **(Added-SEYMOUR JOHNSON)** All survival kits/vests assigned to the 4 OG will contain all components listed in **Attachment 2 (Added)**, **Attachment 3 (Added)**, and **Attachment 4 (Added)** of this supplement.

6.4.8.2. **(Added-SEYMOUR JOHNSON)** Survival vests component layout are listed in **Attachment 5 (Added)** and **Attachment 6 (Added)** of this supplement.

6.4.9. Gunner's Belts/Restraint Harnesses will be inspected IAW T.O. 13A1-1-1, *Repair, Cleaning, Inspection, and Testing of Aircraft Safety Belts, Shoulder Harness, and Miscellaneous Personnel Restraint Equipment*. The MB-21, Part Number MS16070-21 is the restraint device authorized for helicopters. The PCU-17/P and HBU-6/P are the only devices authorized for use in fixed wing aircraft (i.e., C-17, C-130, RC-135, etc.).

6.4.10. Survival Vests. Only authorized and approved survival vests, properly configured and maintained will be worn or used. Inspections will be accomplished IAW appropriate T.O. and MAJCOM directives.

6.4.10. **(ACC)** Wear of the survival vest during local sorties and cross country missions will be at the discretion of local commanders based on ORM, and procedures published in AFI 11-2MDS-Specific, Volume 3, Chapter 8 (Local Procedures). Survival vest will be worn for all contingencies and combat exercises. Not applicable to AFRC units.

6.4.10.1. **(Added-ACC)** The location of pockets on survival vests will be standardized to the maximum extent possible. However, the configuration must be compatible with all ALSE available for wear by and comfort of the aircrew member. Those units flying F-16 aircraft must pay special attention to the location of survival vest pockets to ensure AERP equipment does not interfere with aircraft controls.

6.4.10.2. **(Added-ACC)** Survival vests in storage for deployment commitments will be configured to the maximum extent possible.

6.4.10.3. **(Added-ACC)** See **Attachment 3 (Added)** in this supplement for survival vest minimum components. Units can add approved components at their discretion.

6.4.11. Oxygen Masks and Connectors. Oxygen masks, connectors, and emergency quick disconnects will be inspected, tested, and maintained by qualified ALS personnel as authorized by applicable T.O.s.

6.4.11. **(ACC)** The next inspection due date will be placed on the oxygen mask in a wing standardized position. Aircraft with Quick Don masks will have the due date annotated on the AFTO Form 46.

6.4.11.1. Oxygen mask connectors and emergency quick disconnects will be inspected and tested at least once every 30 days. Document all inspections appropriately. Units will inspect, test, and maintain oxygen connectors used for equipment preflight attached to MQ-1, TTU-529/E or other authorized test-sets and document appropriately.

6.4.11.2. ALS will inspect and repair quick-start masks as required.

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

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

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

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

6.4.12.3. **(Added-ACC)** Personnel Lowering Device (PLD). Group/deployment commanders have the authority to determine the day-to-day use of the PLD. During the PLD usage decision making process, commanders should consider the following: over flown terrain (i.e., mountainous, rough terrain, heavily wooded areas, etc.), flying time over such terrain, and the various uses of the PLD not related to lowering oneself from a tree. If PLDs are not worn on a daily basis, sufficient quantities will be stored properly in the unit's mobility package in serviceable condition.

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

6.4.14. **(Added-ACC)** Strobe Light Distress Marker. A SDU-5E or ACR/MS-2000 will be installed in the survival vest, torso harness, or parachute where daily access is assured.

6.5. Care, Use, and Storage of ALSE. The following specific instructions apply to the unique use, care and storage of ALSE.

6.5.1. All flight clothing will be sanitized prior to deployment to combat areas or first employment mission. Sanitize all ALSE and inspection forms prior to deployment. Use local control numbers on equipment and clothing items to identify and maintain accountability.

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

6.5.3. Fire department personnel will be trained in integration, functional use, and operation of ALSE that may be encountered during aircrew and passenger extraction and apprised of any changes in ALSE equipment type or operation that effect aircrew extraction.

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

6.5.5. Vacuum-Packing ALSE is authorized under the following conditions:

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

6.5.5.2. Vacuum packaging is not authorized for components that would inhibit compliance inspection criteria, aircrew safety, and accessibility for emergency use. Some examples of what not to vacuum pack include signaling and communication devices.

6.5.5.2. (ACC) Do not vacuum pack rubber/plastic ACWDE items. **EXAMPLE:** Over boots, over capes, butyl gloves, or HGU-41/P hoods. CRU-80/P filter packs may be vacuum packed per T.O. guidance.

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

6.5.5.4. Vacuum packaging equipment may be requisitioned IAW AS 006 and AS 258.

6.5.6. (Added-ACC) Post-flight Inspection. A system will be developed within each aircrew life support section to ensure aircrew life support equipment is provided a post-flight inspection by qualified aircrew life support personnel. Local post-flight inspection checklists are authorized to accomplish this inspection. If local post-flight inspection checklists are utilized, they must be reviewed for accuracy with the parent T.O. annually, and upon receipt of T.O. changes.

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

6.7. (Added-ACC) Unserviceable Aircrew Life Support Equipment:

6.7.1. (Added-ACC) Unserviceable parachute components, particularly canopies with suspension lines that are excess to local training needs, will be turned in to base supply for shipment to USAF Survival School, Fairchild AFB WA (FB 4620). Use routing identifier Code DL7.

6.7.2. (Added-ACC) Unserviceable life preservers and component parts excess to local training programs should be shipped to 17 TRS, Pensacola FL, for use by the USAF Water Survival School. Contact HQ ACC/DOTO for RDO process prior to shipping.

6.7.3. (Added-ACC) Unserviceable aircrew life support equipment not otherwise identified may be redistributed to other ACC units for utilization in unit aircrew life support training programs. AFRC units will report excess life support equipment to their respective Numbered Air Force life support managers.

Chapter 7

DEPLOYMENT AND CONTINGENCY OPERATIONS

7.1. Purpose. This chapter establishes broad policies governing responsibility and preparation for the deployment of ALSE. It also establishes requirements for deployment and distribution of ACDE for all aircrew members. Units without a Counter-Nuclear, Biological, Chemical (C-NBC) defense Designed Operational Capability (DOC) or deployable Global Reach Laydown (GRL), Weapons of Mass Destruction (WMD) unit type codes (UTC) are exempt from these requirements.

7.2. Responsibilities:

7.2.1. Group and Squadron Commanders:

7.2.1.1. Will ensure compliance with this chapter and keep ALS personnel abreast of the group's existing and forthcoming contingencies and commitments.

7.2.1.2. Ensure unit's annual financial plan includes a budget for maintaining ALSE to meet all probable peacetime and wartime missions.

7.2.1.3. Ensure that forthcoming mobility commitments are provided adequate support from organizations within the wing/group.

7.2.2. Group LSO/LSS and Squadron LSO/NCOIC:

7.2.2.1. The LSS and NCOICs are responsible for UTC manning and unit mission contingency operation.

7.2.2.2. Ensure standardized unit deployment local directives are developed to recall, deploy, employ, and redeploy ALS personnel, ALSE, and supplies. These directives will include all necessary information required to setup, employ, resupply, and staff the ACCA used by each unit.

7.2.2.2. **(SEYMOUR JOHNSON)** 335 FS and 336 FS will have a standardized packing list for the mobility package.

7.2.2.3. Identify equipment shortages resulting in mission impairment through the Status of Resources and Training System (SORTS) reporting process IAW AFI 10-201, *Status of Resources and Training System*.

7.2.2.3. **(ACC)** Shortfalls will be identified to HQ ACC/DOTO prior to deployment. AFRC units will identify shortfalls through their NAF to HQ AFRC/DOTSL.

7.2.2.4. Ensure copies of MSDSs are available for each type of hazardous material being shipped to deployed locations.

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

7.2.2.6. **(Added-ACC)** NCOICs will thoroughly review Section 7 of the AOR SPINS prior to deploying to ensure they arrive in theatre with required equipment.

7.2.2.7. **(Added-ACC)** Upon arrival in country, the deployed NCOICs will notify the AOR LSS. Additionally, deployed NCOICs will provide the AOR LSS with a weekly SITREP (via SIPR-NET) detailing personnel, equipment, training issues, and LIMFACS.

7.2.2.8. **(Added-ACC)** LSS ensure individuals with a 3 skill level are not deployed solo.

7.2.3. Pilot and Non-pilot Units.

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

7.2.3.2. Non-pilot units will review assigned UTC equipment listings on a biennial basis. Provide the pilot unit with suggested changes.

7.3. Mobility Preparation, Personnel:

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

7.3.2. If applicable, ensure personnel are qualified in unit assigned aircrew weapons to include issue, operations, cleaning, and security requirements.

7.3.3. All personnel will be current in essential ancillary training and wartime skills identified in CFETP IT1X1 prior to deployment.

7.4. Equipment:

7.4.1. Air Expeditionary Wings (AEW) and AEF units must coordinate with each other, as well as their respective MAJCOMs to ensure appropriate and adequate equipment and supplies are deployed.

7.4.1.1. **(Added-SEYMOUR JOHNSON)** Personnel tasked to deploy should follow the guidelines in **Attachment 7 (Added)** of this supplement. If possible contact deployed location for unique kit/vest configurations.

7.4.2. Units experiencing a shortage of ALSE may work with units with similar MDS aircraft to satisfy requirements. Coordinate all equipment requirements through respective MAJCOMs to ensure other units' deployment capabilities are not hampered.

7.4.3. Ensure mobility bins or boxes are available for transportation and storage of ALSE and supplies. Bins will be pre-packed to the maximum extent possible at all times.

7.4.3. **(ACC)** Mobility supplies should not be used as a source of assets for daily operations at home station.

7.4.4. Ensure sufficient quantities of equipment, parts, supplies, forms, inspection records, T.O.s and computers are packed to support extended combat operations.

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

7.4.6. Ensure equipment stored in the mobility bins or boxes is inventoried and inspected for serviceability at least once every 180 days. A locally developed form will be used on each bin or box to document this inspection. Constant maintenance of mobility stock levels must be accomplished to support ongoing operations. Additional consideration should be given to the potential for follow-on tasking from a deployed location.

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

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

7.5. Deployment:

7.5.1. Ensure deploying ALSE and accompanying inspection forms are sanitized of data pertaining to unit of assignment or activity.

7.5.2. All deploying aircrews will have individual ALSE combat configured prior to the first employment mission. The following actions are required:

7.5.2.1. Issue weapons IAW applicable Air Force instructions (refer to paragraph 7.7. of this instruction).

7.5.2.2. Ensure aircrews sanitize their flight clothing.

7.5.2.3. Personnel locator beacons will be placed in the appropriate mode based on established theater requirements or as directed by battle staff.

7.5.2.4. Configure aircraft ALSE for appropriate contingency operations.

7.5.2.5. Establish procedures to ensure extra, sanitized copies of deploying aircraft and aircrew ALSE records accompany deploying aircraft and aircrews.

7.5.2.6. Enroute support operations will be outlined by MAJCOMs for specific airframes.

7.6. Employment:

7.6.1. As applicable, upon arrival at deployed location, ALS supervision will establish contact with the Survival Recovery Center (SRC) and CE Readiness NBC control center personnel to coordinate plans for aircrew contamination control area (ACCA) construction and operation during stages of alert. ACCA operations should be collocated with groundcrew contamination control area (CCA) operations to the maximum extent possible. Refer to AFI 11-301, Volume 3, *Aircrew Life Support (ALS) Combat Operations* (forthcoming).

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

7.6.3. Follow theater, MAJCOM, and unit specific guidance for employed area operations and redeployment.

7.6.4. Units should report all shortfalls through deployed leadership to minimize impact on theater capability.

7.7. Weapons:

7.7.1. Ensure ALS technicians are qualified annually on weapons handling procedures, operations, cleaning, and security requirements, as applicable, for M9 (9mm) and M16 weapons IAW AFPD 16-8, *Arming of Aircrew, Mobility, and Oversea Personnel*, AFI 31-207, *Arming and Use of Force by Air Force Personnel*, AFMAN 31-229, *USAF Weapons Handling Manual*, AFI 36-2226, and each commands specific arming policies as required. The M9 (9mm) handgun is the primary weapon for ALS personnel.

7.7.2. ALS personnel assigned to units with a mobility requirement are assigned to arming Groups B and C, as applicable. Ensure ALS personnel are selectively armed when tasked to issue, store, and protect weapons at deployed locations, under field conditions, and in support of ACCA operations IAW AFI 31-101 and AFI 31-207.

7.7.3. **(Added-ACC)** The accountability and control of aircrew weapons (9mm) to include issue, cleaning, security, quarterly/annual inspections, and turn-in is the responsibility of ALS personnel. Prior to deploying, inform maintenance support and provide required shipping documentation for weapons and ammo if required.

7.8. Counter-Nuclear, Biological, Chemical (C-NBC) Defense Operations:

7.8.1. Ensure the full basis of issue (BOI) for aircrew C-NBC operations (refer to **Table 7.1.** of this instruction) is available to each aircrew member deployable to a chemical or biological threat area. Aircrews will be sized, fitted and issued a D-1 Bag; remaining assets may be maintained as ready to issue bulk storage. Aircrew deploying into chemical or biological threat areas will hand carry one complete ACDE/AERP (D-1 "mini" bag). Units must also comply with theater specific reporting instructions for C-NBC requirements when the D-1 Bag is insufficient to meet their requirements.

7.8.1.1. **(Added-ACC)** All ACDE not individually hand carried will be bulk shipped in individual bags to the area of operation as part of the squadron's support equipment. Procedures will be established to ensure AERP equipment components are carefully packaged to prevent damage.

7.8.2. Units may assemble sufficient CRU-80/P filter packs (with M13A2 filters installed) to accommodate rapid processing of initial cadre deploying aircrew. Inspect built-up filter packs as required by governing T.O.s and Army Service Bulletin (SB) 3-30-2. Disassemble the remaining filter packs and place parts in resealable bags ready for immediate installation of filter elements. Procedures must be established and personnel and tools must be available for mass filter element installation.

7.8.3. Vacuum packing the completed CRU-80/P assembly to extend the filter element service-life to 2 years IAW T.O. 14P3-1-131, *Operation and Maintenance Instructions With Illustrated Parts Break-down Aircrew Chemical Defense Ensemble*, is highly encouraged.

7.8.4. Unit ALS personnel will maintain individual aircrew sizing information in ALSMS or equivalent, be responsible for requisitioning, fitting, and maintaining ACDE/AERP equipment, and be readily available for donning and doffing operations

7.8.5. Ensure aircrews are trained on handling, use and installation of lithium batteries IAW AFMAN 23-110, Vol 1, Part 1, Chapter 4, Section C.

7.8.6. ALS personnel will be trained in ACCA operations management, and aircrew processing procedures. Only qualified ALS personnel will fit, inspect, maintain, and decontaminate ACDE as required by appropriate T.O.s and this instruction.

7.8.6.1. (Added-ACC) All equipment required to establish and operate a CCA will be shipped as squadron support equipment.

Table 7.1. AIRCREW CHEMICAL DEFENSE EQUIPMENT BASIS-OF-ISSUE (BOI).

Nomenclature	D-Bag Quantities	D-1 Bag (Mini) Quantities	Total Quantities	Training Quantities
MBU-19/P, Mask/Filter Manifold		1	1	15 per Activity
CQU-7/P, Blower and Hose Assembly		1	1	15 per Activity
Inline Filter Assembly	2	1	3	N/A
Filter, Oxygen Emergency Assembly	2	1	3	N/A
Blower Batteries, Lithium	4	2	6	30 per Activity
Aircrew Coverall, CWU-66/P, -77/P or JPACE (Notes 1 and 4)	2	1	3	N/A
Cotton Drawers	2	1	3	1 per Aircrew
Cotton Undershirt	2	1	3	1 per Aircrew
Filter Canister, C2A1	4	2	6	30 per Activity
Protective Gloves 7 Mil Butyl	2 pr	1 pr	3 pr	1 per Aircrew
Glove Inserts	2 pr	1 pr	3 pr	1 per Aircrew
Disposable Footwear Cover, Overboot	4 pr	2 pr	6 pr	2 per Aircrew
Suspension Straps		3	3	45 per Activity
Aircrew Cape, Disposable	4	2	6	2 per Aircrew
MXU-835/P, Intercom Unit	N/A	1	1	15 per Activity
MBU-13/P, CBO Mask (Note 2)		1	1	15 per Activity
HGU-41/P, Protective Hood (Note 2)	2	1	3	15 per Activity
CRU-80/P, Filter Pack (Note 2)		1	1	15 per Activity
M13A2, Filter Set (Note 2)	2	1	3	15 per Activity

Nomenclature	D-Bag Quantities	D-1 Bag (Mini) Quantities	Total Quantities	Training Quantities
M8 Paper (Note 5)	2	1	3	N/A
M9 Tape (Note 5)	2	1	3	N/A
Decon Kit, M291 (Notes 3 and 5)	2	1	3	N/A

NOTES:

1. Cotton undergarments are optional with the CWU-66/P and -77/P.
2. These items are authorized when the AERP system (mask and blower) is not available or assigned aircraft are not modified.
3. Use either the M295 or M291 Decontamination Kit.
4. Use of flightsuit is suitable for training purposes.
5. Use of simulated M8, M9 and M295 is suitable for training purposes.

7.9. Forms Prescribed. AFTO Form 22, **Technical Order Improvement Report and Reply**, AF Form 55, **Employee Safety and Health Record**, AF Form 1000, **Idea Application**, AF Form 1297, **Temporary Issue Receipt**, AF Form 1522, **AFORMS Additional Training Accomplishment Input**, AF Form 2420, **Quality Control Inspection Summary**, AFTO Form 46, **Prepositioned Life Support Equipment**, AFTO Form 781A, **Maintenance Discrepancy and Work Document**, and AFTO Form 781F, **Aerospace Vehicle Flight Report and Maintenance Document**.

7.10. (Added-ACC) IMTs Adoped:

AF IMT 457, **USAF Hazard Report**

AF IMT 623A, **On-The-Job Training Record Continuation Sheet**

AF IMT 847, **Recommendation for Change of Publication**

AF IMT 1098, **Special Task Certification and Recurring Training**

ACC IMT 64, **Request for Placement on the Special Certification Roster**

ACC IMT 261, **Instructor Evaluation Checklist**

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

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

AIR FORCE PUBLICATIONS

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

AFI 10-212, *Air Base Operability*

AFMAN 10-401, Vol 1, *Operation Plan and Concept Plan Development and Implementation*

AFI 10-402, *Mobilization Planning*

AFI 10-403, *Deployment Planning and Execution*

AFI 10-601, *Mission Needs and Operational Requirements Guidance and Procedures*

AFI 10-1101, *Operations Security*

AFI 11-2MDS-Series, Vol 1, *Aircrew Training*

AFI 11-202, Vol 1, *Aircrew Training*

AFI 11-202, Vol 3, *General Flight Rules*

AFI 11-215, *Flight Manuals Program (FMP)*

AFPD 11-3, *Life Support*

AFI 11-301, Vol 1, *Aircrew Life Support (ALS) Program*

AFI 11-302, Vol 1, *C-5, C-9, C-17, C-20, C-21, C-27, C-130, C-141, KC-10 and C/KC-135, Maintenance and Configuration Requirements for Aircrew and Aircraft-Installed Life Support Equipment (LSE)* (projected to be **AFI 11-301, Vol 2**, *Maintenance and Configuration Requirements for Aircrew and Aircraft-Installed Life Support Equipment [LSE]*)

AFI 11-301, Vol 3, *Aircrew Life Support (ALS) Combat Operations* (forthcoming)

AFI 11-401, *Flight Management*

AFI 11-403, *Aerospace Physiological Training Program*

AFI 14-105, *Unit Intelligence Mission and Responsibilities*

AFPD 16-8, *Arming of Aircrew, Mobility, and Oversea Personnel*

AFI 21-101, *Aerospace Equipment Maintenance Management*

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*

AFI 21-112, *Aircrew Egress Systems Maintenance*

AFI 21-201, Management and Maintenance of Non-Nuclear Munitions

AFPD 21-3, Technical Orders

AFCAT 21-209, Ground Munitions

AFMAN 23-110, Vol 1 Part 1, Basic AF Supply Procedures

AFMAN 23-110, Vol 2, Part 2, USAF Standard Base Supply System

AFMAN 23-110, Vol 2, Part 13, Standard Base Supply Customer's Procedures

AFMAN 23-110, Vol 4, Part 1, Air Force Equipment System Policy and Procedures

AFI 23-111, Management of Government Property in Possession of the Air Force

AFMAN 23-220, Reports of Survey for Air Force Property

AFMAN 24-204(I), Preparing Hazardous Materials for Military Air Shipments

AFI 24-301, Vehicle Operations

AFI 24-302, Vehicle Maintenance Management

AFMAN 24-307, Procedures for Vehicle Maintenance Management

AFI 25-101, War Reserve Materiel (WRM) Program Guidance and Procedures

AFI 25-201, Support Agreements Procedures

AFI 31-207, Arming and Use of Force by Air Force

AFMAN 31-229, USAF Weapons Handling Manual

AFI 32-1024, Standard Facility Requirements

AFH 32-1084, Facility Requirements

AFI 32-2001, The Fire Protection Operations and Fire Prevention Program

AFPD 32-40, Disaster Preparedness

AFI 32-4001, Disaster Preparedness Planning and Operations

AFI 32-4002, Hazardous Materiel Emergency Planning and Response Program

AFMAN 32-4005, Personnel Protection and Attack Actions

AFI 33-322, Records Management Program

AFI 33-324, The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections

AFH 33-337, The Tongue and Quill

AFI 33-360, Vol 1, Publications Management Program

AFI 33-360, Vol 2, Forms Management Program

AFI 36-2101, Classifying Military Personnel (Officers and Enlisted)

AFMAN 36-2108, Enlisted Classification

AFI 36-2201, Developing, Managing, and Conducting Training

AFI 36-2209, Survival and Code of Conduct Training

AFI 36-2217, Munitions Requirements for Aircrew Training

AFI 36-2226, Combat Arms Program

AFMAN 36-2236, Guidebook for Air Force Instructors

AFMAN 36-2241, Vol 1, Promotion Fitness Examination (PFE) Study Guide

AFMAN 36-2241, Vol 2, United States Air Force Supervisory Examination (USAFSE) Study Guide

AFMAN 36-2245, Managing Career Field Education and Training

AFPAM 36-2246, Aircrew Survival

AFI 36-2406, Officer and Enlisted Evaluation Systems

AFI 36-2803, The Air Force Awards and Decorations Program

AFI 36-2807, Headquarters United States Air Force Deputy Chief of Staff Air and Space Operations Annual Awards Program

AFI 36-2903, Dress and Personal Appearance of Air Force Personnel

AFI 36-2923, Aeronautical, Duty and Occupational Badges

AFI 37-138, Records Disposition--Procedures and Responsibilities

AFMAN 37-139, Records Disposition Schedule

AFI 38-101, Air Force Organization

AFI 38-201, Determining Manpower Requirements

AFI 38-204, Programming USAF Manpower

AFI 38-401, The Air Force Innovative Development Through Employee Awareness (Idea) Program

AFI 41-302, Aeromedical Evacuation Operations and Management

AFJI 44-117, Ophthalmic Services

AFI 48-101, Aerospace Medical Operations

AFI 48-116, Food Safety Program

AFI 48-123, Medical Examinations and Standards

AFI 48-145, Occupational Health Program

AFI 63-1201, Assurance of Operational Safety, Suitability, & Effectiveness

AFI 90-201, Inspector General Activities

AFI 90-901, Operational Risk Management

AFPAM 90-902, Operational Risk Management (ORM) Guidelines and Tools

AFMAN 91-201, Explosives Safety Standards

AFI 91-202, The US Air Force Mishap Prevention Program

AFI 91-204, Safety Investigations and Reports

AFI 91-205, Nonnuclear Munitions Safety Board

AFPAM 91-211, USAF Guide to Aviation Safety Investigation

AFI 91-301, Air Force Occupational and Environmental Safety, Fire Prevention, and Health (AFOSH) Program

AFI 91-302, Air Force Occupational Environmental Safety, Fire Protection, and Health (AFOSH) Standards

AFMS 13C1, Current Operations Flight

AFMS 31C1, Life Support Section

AFR 64-4, Vol 1, Survival Training (projected to be AFMAN 36-2216)

AFP 64-15, Survival and Emergency Uses of the Parachute

AFP 170-1, Resource Manager's Handbook (projected to be AFPAM 65-605)

CFETP 1T1X1, Parts 1-II, AFSC 1T1X1, Aircrew Life Support Career Field Education and Training Plan

DOD AND JOINT PUBLICATIONS

DODD 5000.1, The Defense Acquisition System

DOD 5100.76-M, Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives

JP 3-50, Vol 1, National Search and Rescue Manual (National Search and Rescue System)

JP 3-50.1, Vol 2, National Search and Rescue Manual (Planning Handbook)

AFOSH STANDARDS

AFOSH STD 48-8, Controlling Exposures to Hazardous Materials

AFOSH STD 48-19, Hazardous Noise Program (formerly AFOSH STD 161-19)

AFOSH STD 48-21, Air Force Hazard Communication Program (formerly AFOSH STD 161-21)

AFOSH STD 48-137, Respiratory Protection Program

AFOSH STD 91-22, Walking Surfaces, Guarding Floor and Wall Openings and Holes, Fixed Industrial Stairs, and Portable and Fixed Ladders

AFOSH STD 91-31, Personnel Protective Equipment

AFOSH STD 91-32, Emergency Shower and Eyewash Units

AFOSH STD 91-43, Flammable and Combustible Liquids

AFOSH STD 91-45, Hazardous Energy Control and Mishap Prevention Signs and Tags

AFOSH STD 91-46, Materials Handling and Storage Equipment

AFOSH STD 91-56, Fire Protection and Prevention

AFOSH STD 91-66, General Industrial Operations

AFOSH STD 91-67, Liquid Nitrogen and Oxygen Safety

AFOSH STD 91-68, Chemical Safety

AFOSH STD 91-100, *Aircraft Flight Line - Ground Operations and Activities*

AFOSH STD 161-21-1W, *Department of Defense, Federal Hazard Communication Training Program, Student's Workbook*

ALLOWANCE STANDARDS

AS 016, *Special Purpose Clothing and Personal Equipment*

AS 450, *Personal/Life Support Equipment*

AS 660, *Equipment Allowances for Non-Weapon Systems Communications Requirements*

TECHNICAL ORDERS

0-1-01, *Numerical Index*

0-1-02, *General Technical Orders*

0-1-11, *Armament Equipment*

0-1-12, *Airborne Electronic Equipment*

0-1-13, *Aircraft Furnishings and In-flight Feeding Equipment, Cargo Loading, Aerial Delivery and Recovery Equipment, Aircraft Fire Detection and Extinguishing Equipment*

0-1-14, *Deceleration Devices and Personal and Survival Equipment*

0-1-15, *Aircraft and Missile Temperature Control, Pressurizing, Air Conditioning, Heating, Ice Eliminating, and Oxygen Equipment*

0-1-31-4, *Ground Radio Electronic Equipment*

0-1-33-1, *General Purpose Test Equipment*

0-1-33-2 *Inspection, Laboratory and Special Purpose Test Equipment (Aircraft, Aircraft Accessories, Automatic Flight Control Systems, Aircraft Engines)*

0-1-33-3, *Special Purpose Test Equipment (Armament, Automotive, Electrical, and Electronic)*

0-1-40, *Commercial Air Conditioning, Heating, Plumbing, Refrigerating, Ventilating, and Water Treating Equipment*

0-1-42, *Coating, Cleaning and Sealing Compounds and Fuels, Gases, Lubricants, Chemicals and Materials*

0-1-43, *Test Sets*

00-5-1, *AF Technical Order System*

00-5-2, *Technical Order Distribution System*

00-5-2-2, *Automated Technical Order Management System (ATOMS) 4.2 User Manual*

00-5-2-102, *ATOMS Application Software*

00-5-15, *Air Force Time Compliance Technical Order System*

00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*

- 00-20-5, Aircraft, Drone, Aircrew Training Devices, Engines, and Air-Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents*
- 00-20-7, Inspection System, Documentation, and Status Reporting for Support and Training Equipment*
- 00-20-9, Forecasting Replacement Requirements for Selected Calendar and Hourly Time-Change Items*
- 00-25-06-2-1, Intermediate Maintenance 412A Survival/Life Support System Equipment Work Unit Code Manual*
- 00-25-213, Transportation, Storage, Testing, Shelf Life, and Quantity Unit Pack Requisitioning of Dry Batteries*
- 00-25-241, Parachutes Logs and Records*
- 00-35A-39, Instructions for Procurement, Issue, Use, and Maintenance of Medical Kits*
- 00-35D-54, USAF Materiel Deficiency Reporting and Investigating System*
- 00-110N-2, Radioactive Waste Disposal*
- 00-110N-3, Requisition, Handling, Storage, and Identification of Radioactive Material*
- 1-1-641, Minimum Equipment Requirements for Overwater, Arctic, and Desert-Tropic Flights*
- 11A-1-1, Conventional Munitions Restricted or Suspended*
- 11A-1-10, General Instructions Munitions Serviceability Procedures*
- 11A-1-46, Fire Fighting Guidance, Transportation, and Storage Management Data*
- 11A10-26-7, Storage and Maintenance Procedures Pyrotechnic Signals*
- 11A10-30-7, Storage and Maintenance Procedures Pyrotechnic Fuses and Fire Starters*
- 11C15-1-3, Chemical Warfare Decontamination, Detection and Disposal of Decontamination Agents*
- 11D1-1-111, Operation and Maintenance Instructions Decontamination Kit, Personal, M258A1*
- 11D1-1-131, Operator's Manual Decontamination Kit, Skin: M291*
- 11P-1-7, Storage and Maintenance Procedures Cartridges for Aircrew Escape Systems*
- 12S10-2AVS6-12, General Support Maintenance Manual, Aviator's Night Vision Imaging System AN/AVS-6 (V) 1 and AN/AVS-6 (V) 2*
- 12S10-2AVS6-21, Operational Support and Intermediate Maintenance Manual for Aviator's Night Vision Imaging System AN/AVS-6 (V) 1*
- 12S10-2AVS9-1, Operator's and Organizational Maintenance Manual, Image Intensifier Set, Night Vision, Type AN/AVS-9 (V)*
- 12S10-2AVS9-2, Maintenance Manual, Intermediate with Illustrated Parts Breakdown, Image Intensifier Set, Night Vision, Type AN/AVS-9 (V)*
- 13A1-1-1, Repair, Cleaning, Inspection, and Testing of Aircraft Safety Belts, Shoulder Harness, and Miscellaneous Personnel Restraint Equipment*
- 14-1-4, Identification Marking of Clothing and Personal Type Flying Equipment*
- 14D1-1-1, Styles of Parachutes To Be Used In Various Type Aircraft*

14D1-1-2, *Cleaning of Parachute Assemblies*

14D1-2, *TCTO Series*

14D1-2-1, *Personnel Parachutes*

14D2-8, *TCTO Series*

14D2-8-1, *Use, Operation Inspection, Arming and Disarming Instructions With Illustrated Parts Break-down Automatic Parachute Ripcord Release P/N 6010100 - Series*

14D3-11, *TCTO Series*

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

14P3-1, *TCTO Series*

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

14P3-1-121, *Custom Fitting Procedures for Flying Helmet Assemblies, HGU-55/P*

14P3-1-131, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Aircrew Chemical-Defense Ensemble*

14P3-1-141, *Operation and Maintenance Instructions Groundcrew Chem-Defense Ensemble*

14P3-1-151, *Operation and Maintenance Instructions With Parts Breakdown Aircrew Eye/Respiratory Protection (AERP) Equipment*

14P3-1-161, *Combined Advanced Technology Enhanced Design "G" Ensemble (COMBAT EDGE Equipment)*

14P3-4, *TCTO Series*

14P3-4-151, *Operation and Maintenance Instructions With Illustrated Parts Breakdown HGU-55/P Flyer's Helmet*

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14P3-5-61, *Operation, Service, and Maintenance Instructions Quick-Donning Anti-Exposure Flying Coverall Type CWU-16/P*

14P3-5-81, *Use, Inspection, Fitting and maintenance Instructions, Anti Exposure Assembly Type CWU-21/P or CWU-21A/P*

14P3-5-91, *Operation and Maintenance Instructions with Illustrated Parts Breakdown, CWU-74/P Flyers Anti Exposure Coverall*

14P3-6-121, *Use, Operation, and Maintenance. Anti-G Cutaway Garment Type CSU-13B/P*

14P3-9, *TCTO Series*

14P3-9-12, *Service Instructions Fixed Filter Nuclear Flash Blindness Protective Helmet Visors and Goggle Lenses*

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

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- 14P4-1-151**, *Chemical-Biological Canisters and Filter Element Procedures*
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- 14S1-3**, *TCTO Series*
- 14S1-3-51**, *Base Assembly, Use and Maintenance of Survival Kits*
- 14S1-4-22**, *Operation, Maintenance and Disposition Instructions Desalter Kit Type MK-2*
- 14S3-1**, *TCTO Series*
- 14S3-1-3**, *Type and Number of Individual Survival Kit Containers and Life Rafts to Be Used In Various Type Aircraft*
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- 14S3-8-2-1**, *Aviation Crew Systems Inflatable Survival Equipment (LRU-14A/A Life Raft)*
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31R2-2PR, *TCTO Series*

31R2-2PR-101, *Operation, Organizational, and Field Maintenance Instructions Radio Set AN/PRC-90 and Radio Test Set AN/PRM-32*

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33D2-10-63-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Oxygen Leak-age Regulator Tester, Model MH-2*

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40W4-16-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Manual Reverse Osmosis Desalinator MROD-06-LL-1*

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Abbreviations and Acronyms

AC—Aircraft Commander

ACC—Air Combat Command

ACCA—Aircrew Contamination Control Area

ACDE—Aircrew Chemical Defense Ensemble

ACDT—Aircrew Chemical Defense Training

AEF—Aerospace Expeditionary Forces

AERP—Aircrew Eye/Respiratory Protection

AETC—Air Education and Training Command

AEW—Air Expeditionary Wing

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

AFCAT—Air Force Catalog

AFH—Air Force Handbook

AFI—Air Force Instruction

AFIND—Air Force Index

AFJI—Air Force Joint Instruction

AFJMAN—Air Force Joint Manual

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFMS—Air Force Manpower Standard

AFORMS—Air Force Operations Resource Management System

AFOSH STD—Air Force Occupational, Safety, and Health Standard

AFPAM—Air Force Pamphlet

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

ALS—Aircrew Life Support

ALSCT—ALS Continuation Training

ALSE—Aircrew Life Support Equipment

ALSMS—Automated Life Support Management System

ANG—Air National Guard
ANGIND—Air National Guard Index
ARC—Air Reserve Component
AS—Allowance Standard
BFT—Basic Fighter Training
BOI—Basis Of Issue
C—Celsius
CFETP—Career Field Education and Training Plan
CTK—Composite Tool Kit
DCS—Deputy Chief of Staff
DRU—Direct Reporting Unit
DSN—Defense Switched Network
EEIC—Element of Expense/Investment Code
EPT—Egress Procedures Trainer
F—Fahrenheit
FM—Functional Manager
FOA—Field Operating Agency
FOD—Foreign Object Damage
FTU—Fighter Training Unit
HEED—Helicopter Emergency Egress Device
HHQ—Higher Headquarters
IAW—In Accordance With
IG—Instructor Guide
LOGDET—Logistics Detail
LSO—Life Support Officer
LSS—Life Support Superintendent
MAJCOM—Major Command
MDS—Mission Design Series
N/A—Not Applicable
NAF—Numbered Air Force
NCO—Noncommissioned Officer
NCOIC—Noncommissioned Officer In Charge

NSN—National Stock Number
NVG—Night Vision Goggles
O.I.—Operating Instruction
OJT—On-The-Job Training
OPLAN—Operations Plan
OPR—Office of Primary Responsibility
OSS—Operations Support Squadron
OSS&E—Operational Safety, Suitability, & Effectiveness
OT&E—Operational Test and Evaluation
PAI—Primary Aircraft Inventory
PCS—Permanent Change of Station
POC—Point of Contact
PQDR—Product Quality Deficiency Report
QI—Quality Inspector
TCTO—Time Compliance Technical Order
TDY—Temporary Duty
TMDE—Test, Measurement, and Diagnostic Equipment
T.O.—Technical Order
TPFDD—Time-Phased Force Deployment Data
UMD—Unit Manpower Document
UTC—Unit Type Code
WST—Water Survival Training

(ACC) Abbreviations and Acronyms

ABFDS—Aerial Bulk Fuel Delivery System
ACWDE—aircrew chemical warfare defense equipment
AERP—aircrew eye and respiratory protection
AFEMS—Air Force Equipment Management System
ALEP—aircrew laser eye protection
ALERTS—Aircrew Life Support Equipment Reporting and Tracking System
ALSCTI—aircrew life support continuation training instructor
APWEB—aircrew protection website
AOR—area of operations

CAC—conduct after capture
CAF—combat air force
CAMS—Core Automated Maintenance System
CCA—contamination control area
CE—civil engineering
COMBAT EDGE—Combined Advanced Technology Enhanced Design "G" Ensemble
CSAR—combat search and rescue
CST—combat survival training
EEBD—emergency escape breathing device
EPOS—emergency passenger oxygen system
FARP—forward aerial refueling point
GPC—government purchase card
GPS—global positioning system
HCV—high contrast visor
IMT—information management tool (Formerly referred to as "form")
LAS—local area survival
NVD—night vision device
OG—operations group
ORI—operational readiness inspection
ORM—operational risk management
PLD—personnel lowering device
PMEL—precision measurement equipment laboratory
PTE—process task evaluation
QC—quality control
QCI—quality control inspection
SAV—staff assistance visit
SERE—survival evasion resistance and escape
TAS—Tool Accountability System
TORC—Organization Configuration
UCI—unit compliance inspection

Terms

Aircrew Contamination Control Area (ACCA)—A self-sustaining aircrew only decontamination control area that minimizes cross contamination to aircrew and is staffed by certified ALS personnel.

Aircrew Chemical Defense Ensemble (ACDE) Equipment—Individually fitted aircrew unique chemical protective equipment for the sole purpose of protecting operators from chemical/biological warfare agents who fly into and out of a chemically contaminated environment.

Aeromedical Evacuation (AE)—The movement of patients under medical supervision to and between medical treatment facilities by air transportation. (Joint Pub 1-02)

Aeromedical Evacuation Crew Members (AECM)—Qualified flight nurses (FN), aeromedical evacuation technicians (AET), and unqualified student trainees under the direct supervision of a qualified instructor or FN, performing AE duties.

Aircrew Life Support Equipment (ALSE)—ALSE encompasses all equipment that is part of the 412A life support system or as designated by ANG/DOOS.

Aircrew Eye/Respiratory Protection (AERP) Equipment—AERP equipment is designed to protect the crewmember from toxic chemical exposure to the head, neck, face, eyes, and respiratory tract. This equipment is designed to provide protection without imposing operational or physiological burdens, degrading mission capability, or combat effectiveness.

Area of Operations (AO) (DOD)—An operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. Also called AO. See also area of responsibility; joint operations area; joint special operations area.

Arctic Flight—Any flight conducted above the 50th parallel of north latitude.

Antarctic Flight—Any flight conducted below the 56th parallel of south latitude.

Bare Base—A base having minimum essential facilities to house, sustain, and support operations to include, if required, a stabilized runway, taxiways, and aircraft parking areas. A bare base must have a source of water that can be made potable. Other requirements to operate under bare base conditions form a necessary part of the force package deployed to the bare base.

Chemical Threat Area (CTA)—An area that may be subject to attack with chemical warfare agents from a number of sources.

D-1 Bag—One complete Aircrew Chemical Defense Ensemble carried by aircrews when deploying to chemical threat environment.

D-Bags—Full compliment of ACDE equipment. May or may not include the D-1 bag during deployment.

Desolate Terrain Flight—Any flight conducted over uninhabited areas (excluding the Continental United States [CONUS]) exceeding one hour flight time.

Ground Crew Contamination Control Area (CCA)—Area managed by civil engineering readiness flight to safely process ground crew personnel

Logistics Detail (LOGDET)—The LOGDET defines standard passenger and equipment movement requirements for each UTC. Equipment detail is provided at the NSN level. Lists all material in an UTC,

prioritizes increment movement, provides increment characteristics, and is the standard equipment listing for planning.

Nomex®—Nomex® fabric is a high-temperature resistant and inherently flame retardant synthetic fabric with no-hot-melt point or drip characteristics. The fabric is light in weight, will not support combustion, but will begin to char at 700° to 800° F. The fabric has good abrasion resistance similar to nylon and is also nonabsorbent like nylon and other synthetic fabrics.

Operational Support Crewmember—Personnel on flying status but not occupying a UMD "A" prefix position.

Operation Plan (OPLAN) (DOD)—Any plan, except for the Single Integrated Operational Plan (SIOP), for the conduct of military operations. Plans are prepared by combatant commanders in response to requirements established by the Chairman of the Joint Chiefs of Staff and by commanders of subordinate commands in response to requirements tasked by the establishing unified commander. An OPLAN identifies the forces and supplies required to execute the CINC's Strategic Concept and a movement schedule of these resources to the theater of operations. The forces and supplies are identified in time-phased force deployment data (TPFDD) files. OPLANs will include all phases of the tasked operation. The plan is prepared with the appropriate annexes, appendixes, and TPFDD files as described in the Joint Operation Planning and Execution System manuals containing planning policies, procedures, and formats. OPLANs are prepared in either a complete format (OPLAN) or as a concept plan (CONPLAN). The CONPLAN can be published with or without a TPFDD file. An OPLAN for the conduct of joint operations that can be used as a basis for development of an operation order (OPORD).

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

Passenger (PAX)—Individual aboard aircraft for the purpose of transportation.

Pilot Unit—Unit designated by the MAJCOM FM to handle LOGDET management responsibilities for an UTC. Pilot units are listed in the header record of each UTC and LOGDET.

Primary Aircraft Inventory (DOD)—The aircraft assigned to meet the primary aircraft authorization. Also called PAI.

Primary Crewmember—Any person, rated or nonrated, and required on aircraft to accomplish flying mission.

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

Unit Manpower Document (UMD)—A detailed staffing list reflecting the distribution of staffing allocations into a finite structure of authorizations (by work center).

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

Attachment 1 (SEYMOUR JOHNSON)**ARMAMENT****HANDLING OF NON-NUCLEAR MUNITIONS IN LIFE SUPPORT SECTIONS**

A1. **RESPONSIBILITY:** It will be the responsibility of all 4th Operations Group Life Support and SERE personnel (1T0X1 and 1T1X1) to ensure compliance with this attachment. It is the responsibility of 4th OSS/OSOL to notify squadron Life Support sections of suspended, restricted, and released flare lot numbers. 4th OSS/OSOL will develop and control an annual explosive safety test determined by training program objectives. A minimum of 25 percent of the questions will be replaced yearly IAW AFI 91-202_ACC SUP 1. All supervisors will provide visitors/newcomers a safety briefing focusing on the hazards associated with their life support section. All explosive safety tests and this attachment must be reviewed annually by 4th FW Weapon Safety. **DISSEMINATION:** This attachment is required reading by all Life Support/SERE personnel and will be posted at each Life Support/SERE explosives storage location.

A2. **PURPOSE:** This attachment will be used as a lesson plan to familiarize all technicians and supervisors on the hazards associated with explosive devices, proper methods of safeguarding, procedures to take when reporting mishaps or unsafe conditions, and many other areas associated with the safe handling of explosives. It also satisfies the requirements of AFI 91-202, para 10.10.

A3. **OBJECTIVE:** Upon completion of explosives safety training each Life Support technician will complete an objective test with a minimum passing score of 80 percent to ensure they understand the hazards of handling and transporting explosives. Anyone failing to achieve a passing score must receive immediate corrective action and retest with a second test. Supervisors will critique missed questions with the individual to ensure complete understanding of material. Explosives safety training will be documented on the member's AF Form 1098.

A4. **REFERENCES:** AFI 31-209, The Resources Protection Program, AFI 31-209/SJAFBI 31-209, AFMAN 91-201, Explosives Safety Standards, AFMAN 91-221, Weapons Safety Investigations and Reports, AFI 91-202 USAF Mishap Prevention Program, AFI 91-204, Safety Investigations and Reports, AFI 11-301V1, ACC Sup 1, Life Support Program, TO 11A-1-10 Munitions Serviceability Procedures, TO 11A-1-46, Fire Fighting Guidance, Transportation, and Storage, TO 11A10-26-7 Specialized Storage and Maintenance Procedures for Pyrotechnics, TO 11P-1-7 Cartridges for Aircrew Escape Systems, TO 11P10-6-7 Storage and Maintenance Procedures for UWARS/CAD, TO 11P12-15-7 Specialized Storage and Maintenance Procedures, Cutters Reefing Line, TO 14S-1-102, USAF Flotation Equipment, TO 14S1-3-51 Base Assembly, Use and Maintenance of Survival Kits, and TO 14S1-11-3 Overhaul Instructions with IPB, Survival Kit.

A5. **EQUIPMENT REQUIREMENTS:** Approved metal security containers and locking devices (IAW AFI 31-209, AFMAN 91-201, and AFI 31-209/SJAFBI 31-209).

A6. Location of Operation:

A6.1. Room ____, Bldg 4418 (333 FS).

A6.2. Room ____, Bldg 4423 (334 FS).

A6.3. Room ____, Bldg 4421 (335 FS).

A6.4. Room ____, Bldg 4421 (336 FS).

A6.5. Room ____, Bldg 4906 (4 OSS).

A6.6. SERE training is conducted at the Cliffs of the Neuse State Park.

A7. Safety Precautions/Prevention:

A7.1. Personnel who work with explosives WILL BE trained and qualified in ALL tasks to be performed

A7.2. All operations WILL BE in strict compliance with all stated references.

A7.3. Personnel and Explosive Limits will ALWAYS be adhered to.

A7.4. At no time will any person attempt to make live munitions inert.

A7.5. Housekeeping will be superior at all times.

A7.6. AFI 40-102 prohibits smoking in the workplace to protect the health of all workers. AFMAN 91-201 prohibits smoking within 50 feet of explosive operations. This applies to all buildings listed in paragraph A6 of this attachment. The use of tobacco products is permitted only in approved areas where "Designated Tobacco Use" signs are posted. .

A7.7. Explosive devices will be kept away from all open flames and heat producing devices.

A7.8. Flammable liquids will not be used within an explosive area unless authorized by T.O. Flammables must be stored at least 50 feet from explosives. A one-day supply referred to as in-use stock may be stored in an approved safety container as authorized by applicable T.O.s.

A7.9. Base Fire Department will be notified anytime there is a change of explosives category, location or posted hazard symbols.

A7.10. Do not fight any fire once it engulfs explosives.

A7.11. Post fire and chemical symbol placards at each entrance of work or storage area. To assist alerting emergency response personnel mount fire and chemical symbol placards outside of building, making sure they are visible from all approached roadways.

A7.12. Ensure proper fire extinguishers are available (according to facility license) and serviceable. Units with lithium batteries will also have Class D fire extinguishers available.

A7.13. Handling procedures: AFMAN 91-201 page 23, para 2.12

A7.13.1. Use containers designed to prevent item-to-item contact.

A7.13.2. Do not tumble, drag, drop, throw, roll or “walk” munitions.

A7.14. 4th FW/SEW will annually review all Life Support/SERE AF Form 2047 (Explosives Facility License). IAW AFMAN 91-201 munitions items installed in Survival Kits, Parachutes and/or Survival Vests are considered to be in service and are not included in the Explosives Limits. AF Form 2047 quantities will NOT EXCEED at any time the following explosive limits:

<u>Class/Division</u>	<u>Nomenclature</u>	<u>Qty</u>
1.4G (D, E)	MK-124 Signal Flares *	* ea
1.3G (D, E)	Personnel Distress Kit AP/25S-5A	10 ea/ SERE 25 ea
1.4S	Survival Kit Locking Cord Cutter	8 ea
1.4S	Reefing Line Cutter	16 ea
1.4S	UWARS	16 ea
1.4S	Cartridge Activated Cutter	10 ea
1.4S	FLU-9 Series Inflator	10 ea
1.4S	9mm Ball Ammunition #	30 rd

* = MK-13 and M-124 signal flares are interchangeable, total quantities stored will not exceed 50 flares for Life Support and 25 flares for SERE.

= Due to mission requirements the 333 FS and 334 FS AF Form 2047 will not list 9mm ball ammunition.

A7.15. Personnel Limits: All personnel involved in explosive operations are responsible to strictly enforce the following Personnel limits: 1 supervisor, 6 workers, 2 casuals in the equipment maintenance area for building 4418, 4421, and 4423, and 1 supervisor, 3 workers, 2 casuals in the equipment maintenance area for building 4906. All explosive operations must cease if visitors are present.

A7.16. Transportation of explosives.

A7.16.1. Transportation of explosives will take place only in government vehicles.

A7.16.2. All munitions must be secured in vehicle during transport.

A7.16.3. Notify passengers when munitions are on board and the location of extinguishers.

A7.16.4. Each explosives-laden vehicle used for transportation of survival kits, survival vests, and parachutes will be equipped with at least two portable fire extinguishers, each rated at 2A:10BC (as a minimum). One fire extinguisher will be mounted inside the vehicle and one mounted outside on the driver's side.

A7.16.5. When transporting explosives the following personnel limits will be strictly enforced: 1 driver and 1 passenger (2-person vehicle) or 1 driver and 5 passengers (6-Pax or Metro vehicle). The explosive limits will not exceed a total of 4 survival kits and 4 parachutes containing explosives.

A7.16.6. Survival kits and parachutes with explosives must contain all the required safety devices and be secured to prevent movement during transit.

A7.16.7. Explosives must be packed separately from other items and packed in closed, clearly identified, metal or wooden containers.

A7.16.8. Smoking inside of or within 50 feet of vehicle is prohibited.

A7.16.9. Do not refuel an explosives-laden vehicle.

A7.16.10. Explosives-laden vehicles must not be left unattended.

A7.16.11. Use DOT approved placards for transporting explosives or chemicals.

A7.16.12. Placards are not required for HC/D 1.4 explosives on base.

A8. Emergency Procedures:

A8.1. Fire:

A8.1.1. Use voice to initially sound alarm. Shout: "FIRE, FIRE, FIRE" and pull alarm box located _____ . (Brief the location of the closest alarm box for your building).

A8.1.2. Notify fire department by telephone (911). Use a phone in a room away from the fire. Provide location, nature and extent of fire and post guide for fire department at each entrance to section. Leave phone off the hook when you evacuate the building.

A8.1.3. When an abnormal condition is noted during the inspection of any explosive device or explosive activated device (survival kit) work will be stopped and a supervisor notified for further guidance.

A8.1.4. At no time will any personnel attempt to extinguish a fire involving explosives.

A8.2. Anti-robbery procedures:

A8.2.1. Do not take any action that will place your life or that of others in your activity in jeopardy.

A8.2.2. Observe closely the individual(s) characteristics: height, weight, color of hair and eyes, complexion, deformities, scars, color and style of clothing, etc.

A8.2.3. Attempt to determine vehicle description, license number and route of travel.

A8.2.4. Pay attention to weapon used by robber(s).

A8.2.5. Call Security Police as soon as possible, ext 2-1211, and give all known information.

A8.3. Bomb threat procedures (Use AF Form 440):

A8.3.1. Remain calm and listen closely to caller.

A8.3.2. Do not hang up phone, even if caller does.

A8.3.3. Use a different phone and call chief operator and ask to have call traced.

A8.3.4. Call Security Police Desk, ext 2-1211, and give the following information:

A8.3.4.1. Your name.

A8.3.4.2. Building number.

A8.3.4.3. Type and location of device.

A8.3.4.4. Detonation time.

A8.3.4.5. Male or female caller.

A8.3.4.6. Any background noises heard,

A8.3.4.7. Reason why device was placed there.

A8.3.5. Sound the alarm for building evacuation.

A8.3.6. Secure any classified material.

A9. Operational Explosive Procedures:

A9.1. All personnel will be trained in the proper procedures for handling, storing, and inspection of explosive devices before beginning any operation pertaining to such devices.

A9.1.1. Conduct pre-task safety briefing for members involved in explosives operations or transportation.

A9.2. Explosive devices will never be left unattended.

A9.3. Explosive devices will always be blocked in a manner to preclude rolling off of work surfaces and impacting the floor.

NOTE

These distances can change. Check TO when posting change or supplement. Notify technicians if distances do change.

A9.4. Unpackaged explosive devices that have impacted the floor from a height above 5 feet will always be considered unserviceable. Packaged explosive devices that have impacted the floor from a height of 10 feet will be considered unserviceable.

A9.5. Individual signals for the A/P25S-5/A will be removed from bandoleers one signal at a time, inspected, and placed back into bandoleer before inspecting another signal.

A9.6. All explosive devices or explosive activated devices will be inspected IAW applicable technical orders. Equipment inspection checklists may be used when inspecting parachute releases.

A9.7. Survival kits containing explosive (such as MK- 13 Mod 0, MK-124 Mod 0, Distress Kit Flares, and Locking Cord Cutters) materials must contain all required safety devices when removed from aircraft. All survival kits and parachutes must be secured to prevent movement during transit.

A9.8. Each vehicle used for transportation of survival kits, parachutes and aircrews wearing survival vest will be equipped with at least 2 portable fire extinguishers, each rated at 2A:10BC.

A9.9. The Conventional Munitions Restricted or Suspended (CMRS) online system will be reviewed quarterly by 4 OSS/OSOL for suspended, restricted or released flare/actuators and locking cord cutter lot numbers.

A9.9.1. A quarterly list of suspended and restricted munitions will be published no later than the 10th day of January, April, July, and October by 4 OSS/OSOL. Interim changes to this published letter will be the responsibility of 4 OSS/OSOL. This letter will be reviewed by all Life Support technicians and posted in the survival kit/vest inspection area.

A9.9.2. While inspecting survival kit/vest, the Life Support technician will verify the lot number of the munitions item for serviceability by using the 4 OSS/OSOL furnished letter addressed in

A9.9.1. If the munitions item lot number is listed on the published letter, it will be immediately removed from service and turned in to Munitions Supply personnel for disposition. All lot numbers and dates of installation will be annotated with 100 percent accuracy.

A9.10. Explosives deemed unserviceable will be stored in an appropriate metal container with an AFTO Form 1574 annotated with the quantity, lot number, and date removed from service while awaiting turn-in. Turn-in unserviceable explosives as quickly as possible to preclude build-up. Unserviceable explosives must be counted against the total authorized on the facility license.

A9.11. Only persons identified on the AF Form 68 are authorized to order and sign for receipt of munitions in your shop.

A10. Operations During Combat Survival Training (CST)

The following information is provided for the operation of signaling devices during CST exercises.

A10.1. There can be absolutely no horseplay when igniting live flares.

A10.2. An adequate number of fire extinguishers for the environmental conditions will always be available.

A10.3. Whenever possible a ten feet area in diameter will be cleared of all combustible debris before actuating any signaling device.

A10.4. No more than one student per instructor will ignite flares at a time.

A10.5. Students will be briefed on the physical hazards associated with improperly actuated signaling devices.

A10.6. In the event a signal does not activate it is imperative that it be treated as a live device in regards to physical safety.

A10.7. Cases from expended signals will be turned into AFK.

A11. Security Procedures:

A11.1. Post "Limited Access" signs at each entrance to the Life Support section.

A11.2. Control entry into and circulation of all personnel within the controlled area by means of personal recognition.

A11.3. Only personnel who are certified/trained in the security and safe handling of these items (annotated on AF Form 1098) are authorized to remove non-nuclear munitions from the storage area.

A11.4. Life Support sections will be locked at all times when not manned.

A11.5. Local key control procedures must be established for each Life Support section.

A12. Individual Responsibilities: Everyone regardless of rank or position is responsible for explosive safety.

A12.1. All personnel will handle all explosive devices in a safe and responsible manner.

A12.2. Absolutely no horseplay is permitted during explosive operations.

A12.3. Report all unsafe conditions or acts to the appropriate supervisor.

A12.4. Strictly adhere to posted personnel and explosive limits.

A12.5. Treat ALL explosive devices as potentially life threatening.

A12.6. Maintain familiarity with all explosive related technical orders and directives.

A12.7. Explosive devices will never be left in the open where they may be pilfered or handled by unauthorized persons.

A12.8. Supervisors will at all times provide safe working environment for all operations.

A12.9. Supervisors will document explosive safety training on AF Form 1098.

A12.10. Inventory munitions in shop on a weekly basis. Use a form developed by your section.

A12.11. Supervisors will ensure that all the above stated responsibilities are strictly adhered to.

Attachment 2 (Added-ACC)**GPS INSPECTION PROCEDURES**

A2.1. (Added-ACC) GPS System Set Up. GPS system setup will be: mode normal, hours 24, contrast 50%, backlight 15 seconds, and sound off. Navigation setup will be: position format ddd°mm'ss s", map datum WGS 84, CDI \pm 0.25, units nautical, and heading auto.

A2.1.1. **(Added-ACC)** Garmin GPS receivers that have acquired satellite acquisition and downloaded almanac data must periodically reacquire satellite signals and update stored almanac data. Receivers that have been in storage for 90 days or longer will not automatically obtain satellite acquisition. The outdated almanac data must be cleared to force the receiver to obtain new almanac data. Pressing and holding the "page" button, then pressing the "power" button, and then releasing the "page" button, can accomplish this. Using this procedure requires approximately 10 to 15 minutes acquisition time.

A2.1.2. **(Added-ACC)** Approximately every 60 days obtain satellite acquisition. Allow the receiver to track the satellites for a minimum of 15 minutes. This will update the stored almanac data.

A2.1.3. **(Added-ACC)** LSS will ensure the following 60 day inspection procedures are used for each Garmin GPS placed into service. Inspections will be tracked separately. The LSS will determine inspection-tracking method; however, ALSMS is recommended.

A2.1.3.1. **(Added-ACC)** Power on the receiver and obtain satellite acquisition.

A2.1.3.2. **(Added-ACC)** Allow receiver to track satellite for 15 minutes minimum from first satellite acquisition.

A2.1.3.3. **(Added-ACC)** Turn receiver off.

A2.1.3.4. **(Added-ACC)** Update inspection record.

A2.1.4. **(Added-ACC)** Units that store their Garmin GPS receivers will utilize the following procedures prior to placing the receivers in service. These procedures should be utilized from the area where the receiver will be operationally old.

A2.1.4.1. **(Added-ACC)** Obtain satellite acquisition and new almanac data by pressing and holding the "page" button, then pressing the "power" button, and then releasing "page" button. Allow the receiver to track satellites for 15 minutes from first satellite acquisition. Turn receiver off. Update inspection records.

A2.1.4.2. **(Added-ACC)** Inspect each receiver IAW paragraph **A2.1.3. (Added)** until the receiver is placed back into storage.

A2.1.5. **(Added-ACC)** Perform steps outlined in paragraph **A2.1.4. (Added)** prior to first flight upon arrival at deployed location to ensure almanac data is updated for the deployed location.

Attachment 2 (SEYMOUR JOHNSON)

OPERATIONAL SQUADRONS WILL PACK THE FOLLOWING COMPONENTS IN THEIR SURVIVAL KITS

Survival Component	Rucksack	Auxiliary Container
Survival Radio, PRC-90 series with Spare Battery		1
MK 13 or MK 124 Mod O Flares		2
Signal Kit, A/P25S-5/A		1
Raft Repair Plugs	2	
Brass Snare Wire, 20 ft	1	
Water, Flex Pack	10	10
Knife, 5 inch	1	
First Aid Kit		1
Chapstick	1	
Poncho	1	
Matches in Case		1
Sponge, Green	1	1
Sea Marker Dye	1	
Space blanket, Orange/Silver	1	
Bag, Storage Drinking Water (10-Pints)	1	
Fishing Kit	1	
Hat Desert Camouflage	1	
Survival Manuel, AFTTP(I)3-2.26	1	
Mini Mag Light	1	
Spare AA Batteries with Mini Mag Light	4	
Goggles, Desert Dust	1	
Candle	1	1
Sunscreen	1	
Hood, Polypropylene or Knit	1	
Insect Repellent	1	
Mirror		1
Whistle		1
Compass		1
ENVIS	1	

Attachment 3 (Added-ACC)

SURVIVAL VEST MINIMUM EQUIPMENT

A3.1. (Added-ACC) Survival Vest Minimum Equipment:

Table A3.1. (Added-ACC) Survival Vest Minimum Equipment Items.

Survival Vest Minimum Equipment Items	Quantity
Radio, PRC-90 series w/Battery (Note 2)	1
Battery PRC-90, spare BA-5368 (Note 2)	1
Signal flare, MK-13 or MK-124	1
Matches, windproof/waterproof, storm proof w/container & striker	1
Whistle	1
Mirror, Signal, MK-3 Type I or II	1
Compass, Lensatic	1
GPS w/2 sets of spare Batteries	1
Holster, 9mm	1
Weapon, 9mm (Notes 1 and 3)	1
HEED/HABD (Note 4)	1
IR Signal, fire fly w/battery (Note 1)	3
IR Reflective tape w/ hook backing (Note 1)	2
Camouflage, face (Note 1)	1
<p>Notes:</p> <ol style="list-style-type: none"> 1. Maintain only for installation as required by CSAR and AOR SPINS. 2. Replace PRC-90 series Radio and battery with PRC-112 series radio and battery for contingency operations. 3. When arming aircrew, ensure one (1) loaded 15-round magazine is installed in the weapon, and one (1) loaded 15 round magazine is installed in a vest pocket. 4. Helicopter over-water missions only. 	

Attachment 3 (SEYMOUR JOHNSON)**FTUS WILL PACK THE FOLLOWING SURVIVAL COMPONENTS IN THEIR SURVIVAL KITS**

Survival Component	Rucksack	Auxiliary Container
Survival Radio, PRC-90 Series with Spare Battery		1
Flare, MK 13 or MK 124		2
Signal Kit, A/P25S-5A		1
Sunscreen	1	
Water, Flex Pack	5	5
Knife, Benchmade		1
First Aid Kit		1
Poncho	1	
Matches in Waterproof Case	1	
Sponge	1	1
Sea Marker Dye	1	
Space Blanket, Orange/Silver	1	
Wool Cap	1	
Flash Light	1	
Survival Manual, AFTTP(I) 3-2.26	1	
Raft Repair Plugs	2	
Mirror		1
Whistle		1
Compass		1

Attachment 4 (Added-ACC)

WING STANDARD LIFE SUPPORT QUALITY ASSURANCE PROGRAM

A4.1. (Added-ACC) General. The Wing Standard Life Support Quality Assurance Program is a base guide which encompasses most QA activity for the squadron and ensures all equipment and vital programs are adequately inspected. This ensures only the highest quality equipment is provided to each aircrew member. If necessary, each life support section will supplement these guidelines to develop a viable quality assurance program that will assess, analyze, and identify problem areas that may exist. Utilize this program to measure technician competence, equipment serviceability, and overall program integrity. Ensure the following guidelines are adhered to as a minimum:

A4.1.1. (Added-ACC) Daily QCIs:

A4.1.1.1. (Added-ACC) Helmets and oxygen masks to include 358s, smoke masks, Emergency Escape Breathing Devices (EEBD), Emergency Passenger Oxygen System (EPOS), NVGs, anti-g-suits/vests, survival vests, deceleration devices (parachutes, restraint/torso harnesses), and aircrew chemical defense equipment, not all inclusive. 25% daily.

A4.1.1.2. (Added-ACC) All survival kits (ACES II, ML-4, multi-place raft kits, not all inclusive) will be given a 100% QCI. At a minimum, the QCI will review the following (when applicable):

component inspection

raft hook up and torque

kit closure

A4.1.1.3. (Added-ACC) All items received from outside support agencies will receive 100% QCI. These agencies are defined as Survival Equipment, TMDE, medical supply, and munitions.

A4.1.2. (Added-ACC) The QCI process will also include other functions which require assessment on a routine basis. NCOICs or assistants will conduct and document checks on at least one of the major areas listed below on a weekly basis.

Explosive locker/munitions program

PMEL

CTKs

Administrative files to include technical orders, etc.

OJT, to include task evaluations, etc.

Supply, to include control and accountability, documentation, supply product reviews, etc.

Inspection record files

Storage of equipment

Housekeeping

A4.1.3. (Added-ACC) Documentation of QCI. Upon completion of the inspection, the inspector will document QCIs IAW this instruction and ensure all pertinent information is gathered. The form will include, as a minimum the following information.

A4.1.3.1. **(Added-ACC)** Item/equipment type, local control number, name of item inspector, date of QCI, discrepancy (if noted), name of QC inspector, and a suspense date for corrective action. Also, include areas for corrective action (**EXAMPLE:** page and paragraph from T.O.), date corrected, and initials of person correcting the discrepancy.

A4.1.4. **(Added-ACC)** Squadron NCOICs or assistants will conduct monthly training sessions on negative trends identified from the QCI process.

Attachment 4 (SEYMOUR JOHNSON)

FTU AND OPERATIONAL VEST COMPONENTS

A4.1. (Added-SEYMOUR JOHNSON) The unit LSO and NCOIC are both responsible for ensuring an effective QA program is operating within the ALS section. The NCOIC will appoint a QA monitor to implement this program. The NCOIC will appoint additional, highly qualified QA inspectors as required to help perform the daily QA checks of ALS equipment.

A4.2. (Added-SEYMOUR JOHNSON) The ALS quality assurance personnel will keep the NCOIC informed of all major and minor discrepancies as well as any developing trends noted on ALS equipment.

A4.3. (Added-SEYMOUR JOHNSON) The QA monitor will determine the frequency of QA inspections, except where noted. Discrepancies will be corrected on the spot. Discrepancies that cannot be readily fixed will be logged into the open discrepancy log. Discrepancy log will be cleared by the end of the week, unless outside factors such as supply or fabrication repairs dictate otherwise. Log will be reviewed by QA monitor and NCOIC prior to completion of trend analysis.

A4.3.1. **(Added-SEYMOUR JOHNSON)** Before technicians are authorized to perform QCIs they will be either certified on the equipment in their records or the section will publish a continuity book to train and assist the QCI inspector. Units will forward draft QCI checklist to 4 OSS/OSOL for review prior to utilization.

A4.3.2. **(Added-SEYMOUR JOHNSON)** Life support technicians will complete a screening-type inspection on all items received from a support agency. Technician should perform this inspection prior to departing the support agency with the equipment. Once the screening inspection is complete, give a copy of the QCI form to the support agency and retain the original.

A4.4. (Added-SEYMOUR JOHNSON) NCOIC will provide LSS a monthly QCI report assessing their quality assurance program detailing all major and minor discrepancies as well as any developing trends.

FTU's will pack the following survival components in each survival vest. **Bold** items are mandatory IAW AFI 11-301V_1ACCSUP1.

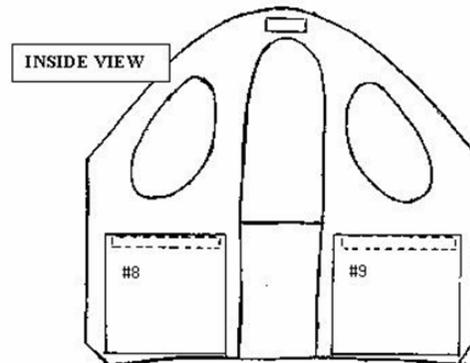
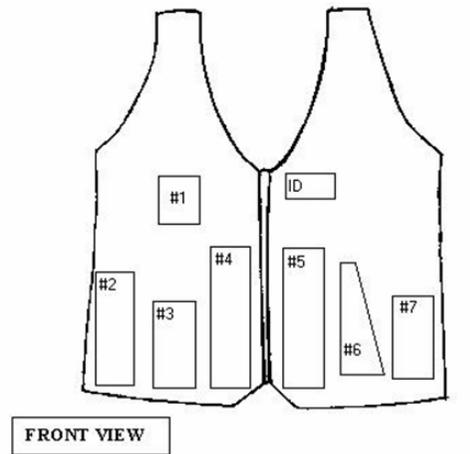
Survival Components	Qty
PRC-90-Series Radio With Spare Battery	1
Garmin GPS-12 or Equivalent w/spare batteries (Note 1 and 2)	1
Flare MK 13 or MK 124	1
Whistle	1
Compass Lensatic	1
Mirror, Signal MK-3	1
Match Container With Matches	1
Tourniquet	1
Gerber Tool or Equivalent	1
Fire Starter, Strike Force	1

Operational squadrons will pack the following survival components in each survival vest. **Bold** items are mandatory IAW AFI 11-301V_1ACCSUP1.

Survival Components	Qty
Radio Set, PRC-90-Series or PRC-112 Series W/Spare Battery (Note 3)	1
Flare MK 13 or MK 124	1
Camouflage Stick or Face Paint	1
Whistle	1
Compass, Lensatic	1
Mirror, Signal MK-3	1
Match Container With Matches	1
IR Signals (Firefly) w/Batteries (Note 2)	3
IR Reflective Tape with hook/pile backing	2
Garmin GPS-12 or Equivalent w/(2 sets) of spare batteries (Note 1 and 2)	1
9mm Pistol with two Magazines	1
9mm Ammunition	30
Insect Repellent	1
Tourniquet	1
Fire Starter, Strike Force	1
Water, Flex	4
Leatherman's Tool or Benchmade	1

NOTES:

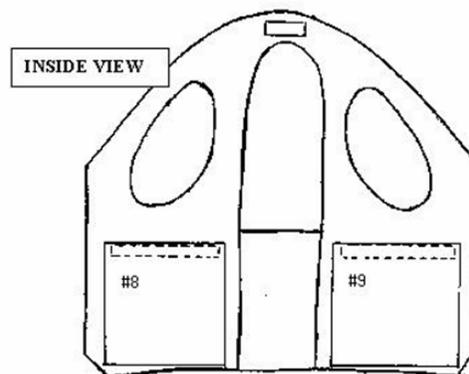
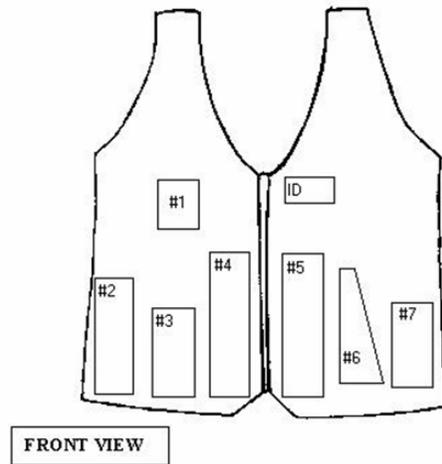
1. Only 311 HSW or HQ ACC/A3TO approved GPS units are authorized.
2. Replace AA batteries with less than 1.25 volts or 9-volt batteries with less than 8.5 volts
3. Subject to change based upon Special Instructions (SPINS).

Attachment 5 (Added-SEYMOUR JOHNSON)**FTU VEST****4 OPERATIONS GROUP MIMINUM FTU COMPONENTS**

1. TOURNIQUET
2. GERBER, STRIKE FORCE, AND MK-13
3. COMPASS
4. RADIO, PRC-90 SERIES W/SPARE BATTERY
5. GPS W/SPARE BATTERY
6. HOLSTER, (NOT INSTALLED IN TRAINING UNITS)
7. MIRROR, MATCHES AND WHISTLE
8. EMPTY
9. EMPTY

Attachment 6 (Added-SEYMOUR JOHNSON)

OPERATIONS VEST



4 OPERATIONS GROUP MINIMUM OPERATIONS COMPONENTS

1. TOURNIQUET
2. GERBER, STRIKE FORCE
3. COMPASS, (3) 9V BATTERIES, (3) FIRE FLYS, AND (2) GLOW TAPE
4. RADIO, PRC-90-SERIES W/SPARE BATTERY
5. GPS, (8) SPARE AA'S, AND MK-13 OR 124 FLARE
6. HOLSTER
7. MIRROR, MATCH CONTAINER, CAMO STICK, AND WHISTLE
8. FLEX WATER
9. FLEX WATER

Attachment 7 (Added-SEYMOUR JOHNSON)**LIFE SUPPORT CONTINGENCY DEPLOYMENT CHECKLIST**

NOTE: Each section must establish priorities to prevent breakdown of the mobility process. Recommended priorities are in this order: aircraft generation, mobility bins/pallets, pilot gear/inspections and lastly personnel processing. Deviations may be required however, but never lose sight of the objective of safely deploying a competent fighting force.

A1. INITIAL RECALL:**A1.1. Arrival at shop:**

A1.1.1. Ensure En-route Support Team (ESTA) A and B packages are ready.

A1.1.2. Telephone squadron Fighter Squadron Maintenance (FSM) expediter to immediately work all aircraft due any inspections within 14 days.

A1.1.3. Notify support activities. Inform them you are deploying and will need to pick up all your equipment in their sections. Give time for pick up if you can provide it.

A1.1.4. Inform Unit CC and 4 OSS/OSOL of any personnel and/or equipment problems.

A1.2. Time sequence of events:

A1.2.1. Determine if deployment is "real world" or simulated and number of aircraft with tail numbers if available.

A1.2.2. Establish/project sufficient lead time for deploying aircraft and pilot flight equipment.

A1.2.3. Determine times for processing, marshaling and deployment.

A1.2.4. Establish duty hours. (consider, sleep, meals, packing and personal affairs)

A1.2.5. Sanitize all deploying pilots' gear. This will include removal of unit identifying marks. Customized visor covers are not authorized for deployment.

A2. MOBILIZE:

A2.1. Personnel: Ensure all mobilizing individuals (IT1X1) have necessary items in accordance with SJAFB Deployment Plan

A2.1. EQUIPMENT:

A2.1.2. Determine water temperature en route and at destination for decision to wear or palletize anti-exposure suits.

A2.1.3. Pick-up weapons, ammunition, AFTO 105s, and weapons continuity books.

A2.1.3.1. Determine whether you will issue aircrew weapons or have them palletized and marshaled. If they are marshaled they must be under DoD surveillance.

A2.1.4. If Global Positioning System (GPS) Receivers and PRC-112 Radios are loaded with positions and frequencies they are classified. These assets must receive the appropriate level of protection.

A2.1.5. Inventory mobility bins and bench stock.

A2.1.5.1. Identify and fill mobility bin shortages.

NOTE:

Notify OSOL of unfilled shortages so they can source requirements.

A2.1.5.2. Verify packing list, complete Shippers Declarations, and affix shipping and hazardous cargo labels. Pack remainder of items in mobility bins.

A2.3. AIRCREW CLOTHING:

A2.3.1. Pilots will hand carry all required fitted life support equipment except survival vests and life preservers which should be placed on the pallet due to shipping hazards.

A2.3.2. Pilot will carry additional equipment in travel pod or cockpit as required. D-1 bag and anti-exposure suit may be placed in the travel pod if not being worn for deployment.

A2.3.3. ESTA pilots will hand carry all required life support equipment.

A2.3.4. Pilots are responsible to sanitize flight clothing not maintained by life support.

A2.3.5. All augmenting pilots are responsible for bringing their LS equipment requiring shipment to life support in sufficient time to meet cargo loading times.

A3. DEPLOYMENT:

A3.1. Notify 4 OSS/OSOL of your deployment time to coordinate assistance if needed.

A3.2. Augmenting squadrons will forward all appropriate records to deploying squadron.

A3.3. During deployment phase, ensure enough Life Support personnel are on hand to support deploying pilots/aircraft. Life support personnel from non-deploying squadrons will fill requirements as assigned by OSOL to assist deploying squadron weapons issue, RED BALL, and launch of deploying aircraft.

A3.4. Ensure equipment is marshaled on time.

A3.4. ALSMS records not shipped with the initial deployment package will be boxed and shipped immediately after deployment. These may include: aircraft records, personnel records or computer disks/CDs

A4. DEPLOYED SITE SET UP:

NOTE:

On scene supervisor will determine sequence of events.

A4.1. Prepare to receive aircraft/pilots. (vehicle)

A4.2. Shop layout (lockers, safe, work stations)

NOTE:

This may necessitate renumbering racks and helmets.
NCOIC will post a cross-reference list to minimize confusion.

A4.3. Duty hours/Personnel (billeting, messing, etc.)

A4.4. Locate and receive mobility bins and boxes.

A4.5. Establish duty section and completely unpack mobility bins. Establish dispersed location for assets to prevent total loss due. Set up parachute and equipment racks as needed. Coordinate with Civil Engineering for power, lights, potable water and CCA locations. Make sure fire extinguishers are readily available.

A4.5.1. Storage area.

A4.5.2. Post-flight area.

A4.5.3. Equipment maintenance area.

A4.5.4. Review local OIs if applicable.

A4.5.5. Aircraft: Verify actual "on-hand" aircraft.

A4.5.6. Locate and set up alternate facility location in case of evacuation.

A4.5.7. Locate survival equipment, supply, PMEL and other outside agencies.

A4.5.8. Contact other life support shops and deployed superintendent.

A4.5.9. Make a roster and phone listing of necessary numbers.

A4.5.10. Establish a schedule to pass updated inspection dates to home station.

A4.6. Personal Equipment:

A4.6.1. Renumber equipment as required.

A4.6.2. Ensure flight suit/jacket is sanitized (Pilot responsibility).

A4.6.3. Verify actual “on-hand” equipment inspection dates.

A4.7. Inspection cycle status in ALSMS.

A4.7.1. Establish aircraft inspection cycle for recovery parachutes, 30-Days and annual repack.

A4.7.2. Verify LSE due dates/information for the following gear assigned to each pilot: Helmet and oxygen mask, Anti-G Suit, Torso Harness, Survival Vest, Anti-Exposure Suit, Life Preserver, ACDE Bag, D-1 Bag.

A4.8. Ensure deployed location local publications are checked for unique restrictions or configurations and complied with as required.

A4.8.1. Initialize radios and GPS units. Send list of PLS codes and serial numbers to Intel.

A4.8.2. Ensure SPINS required items are installed in vests/kits.

A4.9. List of supply/equipment requirements. (Send SIPRNET e-mail, or official message, immediately)

A4.10. Place pilot equipment in waterproof bag if not stepping to fly.

A5. REDEPLOYMENT:

A5.1. Immediately prior to redeployment:

A5.1.1. Telephone squadron FSM Expeditors to immediately work all aircraft due any inspections within five days.

A5.1.2. Establish duty hours. (Consider sleep, meals, packing, and personal affairs.)

A5.1.3. Determine times for processing, marshaling and redeployment.

A5.1.4. Check on personnel problems.

A5.1.5. Ensure EST A and B packages are ready for enroute support team personnel to hand carry.

A6. MOBILIZE (REDEPLOYMENT)

A6.1. Personnel: Ensure all redeploying individuals (IT1X1) have the necessary items IAW SJAFB Deployment Plan.

A6.2. Equipment:

A6.2.1. Determine water temperature en-route and at destination for wear or marshaling of anti-exposure suits.

A6.2.2. Clear all GPS units of classified data.

A6.2.3. Recode all PRC-112s with default loader frequencies and ID (225.000, 299.975 and 000000).

A6.2.4. Inventory and pack mobility bins.

A6.2.5. Verify packing list, complete Shippers Declarations and affix shipping and hazardous cargo labels.

A6.3. Aircrew clothing:

A6.3.1. Determine if aircrew will wear, carry on, or marshal the following items: Anti-Exposure Suit/ Oversize Flight Suit and extra Anti-G Suit.

A7. DEPLOYMENT (RETURN TO HOME STATION)

A7.1. Aircrew Clothing: In flight wearing of anti-exposure suit (when required).

NOTE:

Allow additional time prior to “step time” for donning of clothing.

A7.2. Ensure equipment is marshaled on time.

A7.3. Inspection records to be boxed and shipped.

A7.3.1. Aircraft beacons to continuous mode unless time prohibitive.

A7.3.2. Personnel Equipment.

A8. HOME SET-UP:

A8.1. Personnel.

A8.2. Duty hours.

A8.3. Locate and receive mobility bins and boxes.

A8.4. Set-up equipment racks (if required).

A8.5. Aircraft beacons to continuous mode, if not previously accomplished.

A8.5.1. Verify inspections for parachutes and survival kits.

A8.5.2. Telephone squadron Expeditors for access to aircraft as necessary.

A8.6. Personal LSE returned to section (Pilot responsibility).

A8.7. Re-establish inspection cycle:

A8.7.1. Aircraft

A8.7.1.1. Parachutes

A8.7.1.1.1. 30 Day

A8.7.1.1.2. Annual repack

A8.7.1.2. Survival Kits: Annual

A8.7.2. Life Support Equipment:

A8.7.2.1. Helmet and Oxygen Mask

A8.7.2.2. Anti-G Suit

A8.7.2.3. Torso Harness

A8.7.2.4. Survival Kits

A8.7.2.5. Anti-Exposure Suit

A8.7.2.6. Life Preserver

A8.7.2.7. CW Equipment

A8.8. Resupply, pack, and reconfigure mobility assets for future deployments.

A9. LIFE SUPPORT BUG OUT RECONSTITUTION PROCEDURES

NOTE: Each section must establish priorities to ensure an organized evacuation of the facility. Recommended priorities are in this order: personal safety, pilot gear, spare parts/mobility containers, and aircraft

generation. Deviations may be required but ORM is paramount in safely evacuating the facility. The deployed life support personnel should prepare at least one alternate location to the maximum extent possible. This preparation should include tables, chairs and racks if available. The use of augmentees to provide assistance during evacuation and relocation of the life support section is highly recommended.

A9.1. INITIAL ACTIONS:

A9.1.1. Determine the type of damage to the facility:

A9.1.1.1. For power outages, reestablish power utilizing portable generators/power carts from maintenance.

A9.1.1.2. If facility has sustained structural damaged or is contaminated, notify the SRC for a relocation site. (New facility must be in a contamination free area.)

A9.1.1.3. Relocate testers, spare assets and pilot equipment to the new facility. Send personnel to recover dispersed assets if needed for reconstitution. Upon arrival perform immediate hands on inventory and document results by peg number.

A9.1.1.4. Transport or secure weapons and ammunition. Set up an issue and receiving area at new location.

A9.1.1.5. Attempt to salvage any equipment that remained in the evacuated facility. Coordinate with Safety and or firefighters before entering the facility.

A9.1.1.6. Notify SRC, top three and other life support personnel of the new location.

A9.1.1.7. Contact host base supply to requisition replacement assets.

A9.1.1.8. Inventory equipment status for next sorties.

A9.1.1.9. Inform unit CC and 4 OSS/OSOL of any personnel and/or equipment problems.