

TC 3-04.10

Aviation Life Support Maintenance

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Preface

Training Circular (TC) 3-04.10 provides technical information concerning aviation life support system (ALSS) management and training programs.

The principal audience for TC 3-04.10 is all members of the profession of arms. Commanders and staffs of Army headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army also use this publication.

Commanders, staffs, and subordinates ensure that their decisions and actions comply with applicable United States, international, and in some cases host-nation laws and regulations. Commanders at all levels ensure that their Soldiers operate according to the law of war and the rules of engagement. (See Field Manual [FM] 27-10.)

TC 3-04.10 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. Terms for which TC 3-04.10 is the proponent publication (the authority) are italicized in the text and are marked with an asterisk (*) in the glossary. Terms and definitions for which TC 3-04.10 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition.

TC 3-04.10 applies to the Active Army, Army National Guard/Army National Guard of the United States and United States Army Reserve unless otherwise stated.

The proponent of this publication is the United States Army Aviation Center of Excellence; the preparing agency is the Directorate of Training and Doctrine, United States Army Aviation Center of Excellence. To send comments and/or recommendations for change, use Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) found on the United States Army Publishing Directorate website. Comments may be e-mailed to the Directorate of Training and Doctrine at usarmy.rucker.avncoe.mbx.doctrine-branch@mail.mil, or mailed to Commander, USAACE, ATTN: ATZQ-TDD, Fort Rucker, Alabama 36362-5263.

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Introduction

This TC and Army Techniques Publication (ATP) 3-04.7 provide techniques and procedures for aviation maintenance as the foundation for commanders, aviation life support equipment officers (ALSOs), aviation life support equipment noncommissioned officers (ALSNCOs), and aviation life support equipment technicians (ALSETs).

Army Regulation (AR) 95-1, AR 95-20/DCMA INST 8210.1C/AFI 10-220_IP/NAVAIRINST 3710.1G/COMDTINST M13020.3A, FM 3-04, and ATP 3-04.7 provide information on Army aviation structure, relationships, and command, control, and communications concepts. These publications are available on the Army Publishing Directorate's website at <https://www.armypubs.army.mil/>.

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Chapter 1

Aviation Life Support System

This chapter provides a brief history of the developmental evolution of the ALSS. It also details the importance of aviation life support equipment (ALSE) to aircrews and passengers.

MANAGEMENT EVOLUTION

1-1. ALSS program management has evolved from a basic vision of establishing dedicated, safety-enhanced Army aviation equipment to a program of overarching components within a life support system. The guiding theory originally focused on ever-advancing equipment for aviators; however, it soon developed into the management of an entire system encompassing not only personal equipment but also the component systems dedicated to individual aircraft. The Air Warrior (AW) program was developed from this evolutionary process. This program includes current and future development of state-of-the-art equipment to enhance safety and provides crewmembers with situational awareness and functional yet comfortable equipment.

EQUIPMENT EVOLUTION

1-2. AW implementation and fielding evolved in distinct generations as new equipment became available. Descriptions of the first three AW generations are provided in the following paragraphs.

AIR WARRIOR GENERATION ONE

1-3. AW generation one provided an initial system capability that included the development, procurement, and fielding of:

- Flexible body armor.
- Ballistic upgrade plates.
- Primary survival gear carrier.
- First aid items.
- Universal holster.
- Aircrew survival and egress knife.
- Microclimate cooling system (including microclimate cooling garment and cooling unit).
- Overwater mission equipment (including overwater gear carrier, survival egress air, and flotation collar).

AIR WARRIOR GENERATION TWO

1-4. AW generation two technology provided additional capabilities that included the aircraft wireless intercom system and electronic data management. Electronic data management capabilities include—

- Interface with aviation mission planning system and joint mission planning system.
- Moving map displays.
- Performance planning.
- Checklist/manuals.
- Use of aircraft power and global positioning system.
- Stand-alone capability for the UH-60.

- 1-5. Increment IV enhanced generation two technologies by adding the following capabilities:
- Modular integrated helmet display system with heads-up display.
 - Integrated anti-exposure system, laser eye protection, and chemical/biological protective gear waste management system.

AIR WARRIOR GENERATION THREE

1-6. AW generation three is the newest aircrew ensemble in the program's lifecycle. It provides advanced life support, ballistics protection, and chemical, biological, radiological, and nuclear (CBRN) protection in rapidly tailorable, mission-configurable modules. The AW concept was developed with interoperability in mind and has leveraged several joint service technology efforts. The system consists of components effectively integrated to maximize safe aircraft operation and was designed to sustain aircrews throughout the flight environment. The system increases mission effectiveness and provides a means of safe and reliable escape, survival, and recovery in emergency or combat situations. The AW generation three system is compatible with multiple airframe types including the CH-47, AH-64, UH-60, UH-72, and C-27J (not all AW components have been tested in these airframes). System improvements include—

- Microclimate cooling, which allows for extended flight time in mission oriented protective posture 4 (not compatible in the UH-72).
- A helmet system integrated across all platforms that provides improved hearing protection, day/night helmet mounted display, advanced night vision goggles mount, maxillofacial shield, passive and agile laser eye protection, nuclear flash protection, and external audio.
- Hands-free wireless intercom communications between dismounted crewmembers and pilots.
- CBRN protection for all mission oriented protective posture configurations.
- Water survival capabilities such as a low-profile flotation collar, integrated one-man raft, emergency underwater breathing oxygen supply, and anti-exposure suit.
- Survival gear carrier fully compatible with ballistic protection body armor and provisions for the tailorable placement of personal defensive weapons and survival/egress knife.
- Electronic data management, only for non-common avionics architecture system airframes, that increases situational awareness and integrates with Blue Force Tracker on aircraft and Aviation Mission Planning System. On non-common avionics architecture system airframes the technical data link is integrated in the architecture system.
- Survival radio for secure position reporting and over-the-horizon communications capability.
- Extraction harness and safety restraint integrated with survival gear carrier.
- Enhanced aircrew survivability via improved flame and chemical/biological protection.
- Hands-free breakaway connections for emergency egress.
- Equipment designed to accommodate varying threat levels and support operations in all geographical regions and environmental conditions.

Chapter 2

Aviation Life Support System Management Program

The concepts and practices discussed in this chapter are guidelines for conducting the ALSS management program. Mission and operating environments may require units to modify ALSS management to support operational needs. Army aviation doctrine also affects the fielding and sustainment of ALSS maintenance operations.

SECTION I – PROGRAM ADMINISTRATION

2-1. Program administration sets the foundation of how the program should be administered. This section provides the concept that should be used when administering the program.

AVIATION LIFE SUPPORT SYSTEM

2-2. ALSS consists of the components, techniques, and training required to ensure aircrews maintain an optimal flight environment. ALSS also provides flight personnel with maximum functional capability through all environments and enhances safe and reliable escape, survival, and recovery in combat and emergency situations.

AVIATION LIFE SUPPORT SYSTEM FACILITY

2-3. ALSS facilities are established to accommodate a required number of maintenance personnel; provide maintenance areas for scheduled and unscheduled maintenance; and provide storage of ALSE, support equipment, common and special tools, repair parts, supplies, and materials. Minimum requirements for these facilities are specified in AR 95-1.

2-4. Within the ALSS facility, test equipment, tools, and pilferable ALSE components and supplies must be stored in lockable storage cabinets. Administrative areas must be established for charts, records, publications, and administrative supplies. These facilities require augmentation with a mobility capability to support unit deployment requirements.

AVIATION LIFE SUPPORT EQUIPMENT

2-5. ALSE is critical for the survivability of aviation crewmembers. Unit commanders must ensure all mission-required ALSE is available in sufficient quantities and in serviceable condition. To meet the Army's transformation requirements, newer integrated systems that increase ALSE complexity are being fielded, a process that demands better maintenance planning and a higher degree of maintenance skill.

2-6. ALSE comforts, sustains, and protects crewmembers throughout flight and provides additional protection from impacts and post-crash fires. ALSE also enhances the means to escape, evade, and survive in combat or any hostile environment.

EQUIPMENT MAINTENANCE

2-7. The primary maintenance objective is to maintain available aircraft and support equipment in a mission ready status. ALSS maintenance is critical to accomplishing missions and fulfilling other unit maintenance requirements.

CONCEPTS AND POLICIES

2-8. Working in any type of aviation environment is challenging; however, unit ALSS programs must remain functional in all operational environments. ALSS assets are critical to sustaining communications, mobility, and survivability; maintenance of these resources should not become a secondary objective. Commanders must provide personnel and financial resourcing to effectively maintain and sustain their ALSS maintenance, training, and operational programs. Units often face critical decisions such as how to obtain required ALSE, who should perform maintenance, and how personnel should train with and use ALSE.

2-9. The following maintenance concepts and policies must be observed:

- ALSE must be maintained at mission capable status at all times.
- ALSE inspection, maintenance, and repair must be accomplished according to the applicable technical manual (TM), technical order (TO), or Naval Air (NAVAIR) publication for the equipment involved and with authorized repair parts, special tools, and test equipment.
- Unserviceable ALSE beyond the maintenance authority's capabilities must be promptly reported or delivered to the next-higher maintenance level.
- Quality maintenance depends on preventive maintenance services and inspections.
- Operator (crewmember) maintenance must be a priority and emphasized consistently throughout the chain of command. Personal maintenance is a key factor in ALSS operational readiness.
- AR 95-1, AR 95-20/DCMA INST 8210.1C/AFI 10-220_IP/NAVAIRINST 3710.1G/COMDTINST M13020.3A, and Department of the Army Pamphlet (DA PAM) 738-751 contain specific policies on ALSE use, maintenance, and responsibilities. Commanders at all levels should know and understand these policies.
- ALSE Class V items must be reviewed for stockpile reliability (surveillance) according to AR 740-1, and Technical Bulletin (TB) 9-1300-385 and recorded on DA Form 3022 (Army Depot Surveillance Record).

PROGRAM CONSIDERATIONS

2-10. Major considerations for the ALSS maintenance program at field maintenance locations include—

- Maintaining the highest degree of mobility (preparing load plans and practicing deployment procedures).
- Completing all scheduled maintenance before deployment or entry into surge operations to avoid potentially unserviceable ALSE and failure to meet mission requirements.
- Setting priorities (unit commander and production control) for environmental considerations and equipment maintenance based on mission requirements.
- Managing intensive maintenance operations (this consideration is especially critical since combat operations may result in shortages of personnel, repair parts, and aircraft).
- Predesignating and training crewmembers regarding the ALSS program so minimal time and resources are expended during critical periods.

SECTION II – PERSONNEL RESPONSIBILITIES

2-11. This section provides the basic responsibilities of the personnel that have a direct relation to ALSS.

COMMANDERS

2-12. Commanders at all levels are responsible for ALSS maintenance as required in AR 95-1 and this publication. Commanders must—

- Appoint an ALSO to assist, advise, and represent the commander in all ALSS matters.
- Obtain authorized maintenance resources (for example, technically-qualified personnel, facilities, technical publications, repair parts, tools, test equipment, and maintenance supplies).
- Review required budgets and obtain funding for equipment, supplies, and repair parts to ensure a continuous and well-maintained ALSS program.

- Ensure only trained and qualified personnel maintain ALSS assets.
- Ensure ALSE is maintained in serviceable, mission-ready condition in quantities sufficient to support unit mission requirements.
- Prevent abuse of equipment under their control and investigate and act on evidence of abuse.
- Monitor Class V items for physical security and inventory and ensure explosives safety requirements are met per applicable regulations.
- Ensure aircrews perform their duties with properly inspected ALSE.
- Ensure risk management is conducted according to appropriate publications (See ATP 5-19 and DA PAM 385-30).

2-13. Commanders include ALSE maintenance and training program requirements in their budgets. They must manage funding for equipment, supplies, and repair parts to ensure continuous and well-maintained ALSE maintenance and training programs.

2-14. Commanders should resource ALSE maintenance personnel according to table of equipment documents. One full-time ALSE maintainer should be adequate to maintain equipment for up to 50 personnel. Commanders using ALSE maintainers in a part-time capacity must adjust the number of personnel as needed to ensure all required inspections and maintenance is performed.

AVIATION LIFE SUPPORT OFFICER

2-15. In addition to the responsibilities listed in AR 95-1, ALSOs must—

- Assist, advise, and represent the commander in all matters pertaining to ALSS.
- Possess additional skill identifier H2 (ALSO).
- Keep up-to-date standard operating procedures (SOPs) governing ALSS maintenance management and training programs (see appendix A of this publication for guidance) and ensure compliance with Army aviation maintenance and training doctrine.
- Prepare an annual ALSE budget.
- Schedule ALSS maintenance and plan, supervise, and manage unit ALSS maintenance programs.
- Develop and execute ALSS training programs to track crewmember proficiency requirements.
- Develop and execute training programs to maintain and track ALSS technician proficiency.
- Develop and execute training programs regarding proper wear and use of assigned ALSS equipment.
- Coordinate with operations staff officers (S-3s) to determine and provide the amount and type of ALSE needed to meet mission requirements.
- Maintain inventory control records to identify locations of all ALSS shop-assigned property such as vests, radios, life preservers, and test equipment.
- Ensure authorized repair parts and maintenance supplies are available or have valid requisition.
- Ensure outstanding supply requests are accomplished promptly.
- Ensure all Class V items are physically secured and inventoried and explosives safety requirements are maintained according to applicable regulations.

AVIATION LIFE SUPPORT EQUIPMENT TECHNICIAN

2-16. According to AR 95-1 and this publication, ALSETs are appointed to assist, advise, and represent the ALSO in matters pertaining to ALSE. ALSETs must—

- Possess additional skill identifier Q2 (ALSE) and meet military occupational specialty requirements per DA PAM 611-21 (for enlisted Soldiers).
- Perform scheduled and unscheduled maintenance on assigned ALSS equipment.
- Process ALSS test equipment for calibration and ensure shipment of ALSS equipment requiring repair at a higher maintenance level.
- Maintain a skill efficiency level sufficient to perform unassisted maintenance on and fitting of ALSS equipment.

- Coordinate higher-level maintenance for items beyond the capabilities of the ALSE shop due to a lack of skills, tools, or test equipment.
- Replace unserviceable end-item equipment components.
- Record the receipt, operation, maintenance, calibration, modification, and transfer of equipment.
- Maintain a publication library to ensure compliance with administration, maintenance, physical security, supply, and explosives safety regulations and procedures.

AIRCREWS

2-17. Crew members must—

- Use equipment properly.
- Keep equipment clean, presentable, safe, and operable.
- Report any malfunction beyond their capabilities or authorization to correct.
- Perform maintenance and inspections before, during, and after operations per unit SOP and applicable TMs.
- Be accountable for assigned equipment.

SECTION III – BUDGET MANAGEMENT

2-18. ALSS personnel must maintain records outlining the steps and equipment authorizations used to figure budget requests. To obtain repair parts and figure maintenance supply costs, commanders must use the proper maintenance shop stock, operational load, procedures listed in AR 710-2, DA PAM 710-2-1, and DA PAM 710-2-2. Other factors to consider when determining maintenance budgets include unit mission, training requirements, and unscheduled maintenance contingencies.

2-19. The following steps are used to develop an initial ALSE cost analysis or identify equipment shortages for forecasting annual budgets and future requirements.

STEP ONE: DETERMINE PERSONNEL AUTHORIZATIONS

2-20. Some ALSE authorizations (such as helmets, vests, survival radios, survival kits, and oxygen masks) are based on the unit's authorized number of crew members and non-crew members. AR 95-1, common table of allowances (CTAs), tables of distribution and allowances (TDAs), and modified tables of organization and equipment (MTOEs) specify equipment authorizations. ALSOs and ALSETs should refer to their unit's TDA and MTOE to determine crew and non-crew authorizations and orders.

STEP TWO: DETERMINE AIRCRAFT AUTHORIZATIONS

2-21. Some ALSE (such as life rafts and first aid and survival kits) are based on aircraft type, seat availability, and unit mission. AR 95-1, and aircraft operator's manuals specify equipment authorizations. ALSOs and ALSETs should refer to their unit's TDA and MTOE to determine mission statement, number and type of aircraft authorizations, and proper aircraft operator's manual.

STEP THREE: DETERMINE EQUIPMENT AUTHORIZATIONS

2-22. Various ARs, CTAs, SBs, MTOEs, and TDAs authorize unit ALSE. ALSOs and ALSETs should maintain a list of required and authorized equipment based on appropriate publications and unit mission.

STEP FOUR: DETERMINE ON-HAND QUANTITIES

2-23. To determine on-hand quantities, ALSS personnel must conduct a 100-percent inventory of unit ALSE and list each piece in a locally produced document. All authorized equipment is accounted for if the numbers are equal. If the on-hand quantity is greater than that authorized, the overage must be noted in the remarks column. If the on-hand quantity is less than authorized, the on-hand number must be subtracted from the authorized number and any shortages noted in the remarks column. Shortage lists are used to determine

annual budgets by referencing the proper supply publications for obtaining cost and equipment data. A sample budgeting and maintenance scheduling process is provided in table 2-1.

Table 2-1. Sample budgeting and maintenance scheduling process

1. Personnel authorizations (TDA and MTOE)			Cumulative
	Officers	Enlisted	Total
Crew members	30	15	45
Non-crew members	0	3	3
Total	30	18	48
2. Aircraft authorizations (TDA and MTOE)			
	Total Number	Type Aircraft	Seat Availability
	15	UH-60	210 (14 per aircraft)
3. Determine equipment authorizations			
4. Equipment authorizations (ARs, CTAs, SBs, TDA, MTOE) and on-hand quantities (inventory)			
	Authorized	On Hand	Remarks
Helmet	48	58	Overage 10
Life preserver	258	210	Shortage 48
Life raft, 7-man	30	24	Shortage 6
Mask, oxygen	45	45	
Radio, survival	45	35	Shortage 10
	Authorized	On Hand	Remarks
Survival kit, individual, cold climate	45	42	Shortage 3
Survival kit, individual, hot climate	45	42	Shortage 3
Survival kit, individual, overwater	45	42	Shortage 3
Vest, body armor	48	48	
Vest, survival	48	48	
Total	657	594	Shortage 73 (get-well budget)
5. Daily inspection requirements			
Authorized: 657 divided by 84 = 7.8 or 8			
On Hand: 584 divided by 84 = 6.9 or 7			
6. Establish realistic inspection team criteria			
7. Schedule/manage equipment inspections			
Legend-AR-Army regulation, CTA-common table of allowance, MTOE-modified table of organization and equipment, SB-supply bulletin, TDA-table of distribution and allowances			

SECTION IV – MAINTENANCE

2-24. Both aviation and ALSE maintenance is performed on a 24-hour basis. The guiding concept is to “replace forward-repair rear” so units can return aircraft and crews to meet immediate operational needs.

PROGRAM MANAGEMENT

2-25. ALSE-qualified personnel currently on orders are responsible for ALSE maintenance beyond the capabilities or responsibilities of crew members. ALSE personnel must conduct the following maintenance tasks:

- Scheduled periodic maintenance inspections and repair of ALSE items.
- Unscheduled maintenance of ALSE items that fail preflight inspection or are identified as unserviceable by crew members.
- Scheduled periodic maintenance inspections and repair of operational and training ALSE items.

PROGRAM SCHEDULING

2-26. Scheduled ALSE maintenance is necessary to preserve high maintenance standards. Constant coordination between the S-3, ALSO, and ALSET is required to balance mission requirements with adequate maintenance time.

COORDINATION

2-27. To properly schedule ALSE maintenance, the ALSO or ALSET must have vital information regarding unit mission, aircraft, personnel, and equipment authorizations. Maintaining proper documentation and effectively coordinating between maintenance elements is vital in ensuring serviceable ALSE is available for unit use. By completing the following steps, the ALSO assists in providing this information to ALSS personnel. Once completed, the scheduling process may be used for budgeting and maintenance scheduling.

2-28. The supporting quality assurance specialist (ammunition surveillance) (QASAS) representative must schedule required annual inspections for Class V items. Daily surveillance checks must be completed according to AR 702-6, AR 740-1, DA PAM 385-64, and DA PAM 742-1.

SCHEDULING PROCESS

2-29. The following steps outline the maintenance scheduling process.

Step Five: Determine Daily Inspection Requirements

2-30. After completing steps three and four (section III), the ALSO or ALSET should divide personnel and equipment totals by the inspection cycle to determine daily inspection requirements. For example, there are three 120-day inspection cycles per year; on average, there are an estimated 84 working days in a 120-day cycle. With this information, the following formulas may be used to determine daily inspection requirements:

- Total equipment authorized \div 84 = daily inspection requirements (authorization).
- Total equipment on hand \div 84 = daily inspection requirements (real world).

Step Six: Establish Realistic Inspection Item Criteria

2-31. ALSOs and ALSETs must determine the time required to perform periodic inspections on ALSS assets. Maintenance allocation charts listed in equipment maintenance manuals provide a guide for appropriate inspection times. Times listed are for conduct of inspections only and do not allow for performing repairs or maintenance, completing forms and records, or ordering parts. ALSS personnel and supervisors must consider and compensate for these tasks during scheduling. Other factors include working hours and conditions, physical training programs, formations, duty rosters, shop equipment maintenance, and unscheduled ALSE maintenance.

Step Seven: Schedule and Manage Equipment Inspections

2-32. ALSS personnel must evaluate the time allotted to perform ALSE maintenance before unit equipment inspections can be scheduled and managed. In addition, they must regulate inspection intervals to prevent an unmanageable workload and critical ALSE shortage. The goal is for ALSS maintenance to flow smoothly by spreading inspections throughout a given cycle rather than forcing them into 1 or 2 months. Coordination with operations is vital to ensuring ALSE is available to meet all mission requirements, including temporary duties and field exercises.

AUTOMATION

2-33. Several methods are available for tracking inspection requirements and maintaining ALSE accountability (it is important to note, however, that shops must standardize equipment tracking methods within their respective groups). Many ALSETs have developed spreadsheets to track required inspection information. This and other methods used by ALSETs are permissible if they meet United States Army Forces Command (FORSCOM) aviation resource management survey (ARMS) checklist requirements.

ALSE SYSTEM 3.4

2-34. ALSE System 3.4 was developed to assist ALSE maintainers in managing their maintenance programs. ALSE system is software developed for the United States Army, primarily for tracking aviation flight gear issued to crewmembers, aircraft survival kits, and other aircraft essential equipment (hot weather kits, cold weather kits, over-water kits). The ALSE software system has streamlined the issue, receipt, and inspection process by automating the records and marking equipment to capitalize on the AIT handheld devices. Items are marked a unique data identifier which is then scanned into the system for later issue and accountability.

2-35. Inspection dates are set and entered to allow for automated notification of impending inspections as well as email notifications to end users. The ALSE system has a current Certificate of Net-worthiness that allows the software to reside on a Department of Defense (DOD) network or operate as a stand-alone system. ALSE software system interfaces with federal logistics (FEDLOG) and Global Combat Support System-Army (GCSS-A) for ordering and updating item information. Additional information on this software is available at <https://airwarrior.peoavn.army.mil/weblogin.aspx>.

ALSE TRACKER

2-36. ALSE Tracker has been in use in United States Army ALSE shops around the world for over 20 years and is licensed free of charge for unlimited use and distribution to military organizations. Support is via e-mail using the address below. Links are provided in the application help menu to older addresses.

2-37. ALSE Tracker provides hand receipts, equipment lists, inspections due, and much more. Basic areas are provided to track your shop bench stock and technical manuals with inventory and location reports. Aircraft equipment is tracked separately from individual equipment due to the varying responsibilities in different commands. Regular ALSE gear is tracked and printed for both hand receipt maintenance and inspection requirements as well as the ability to view and print by equipment category.

2-38. Other web-based software is available through internet searches.

INSPECTIONS

2-39. Commanders and ALSS program managers must ensure their maintenance programs provide the assets aircrews need without compromising established, safe maintenance standards. ALSE maintenance personnel and crew members must perform different types of inspections to maintain assigned ALSE.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES

2-40. Individual crewmembers must perform preventive maintenance checks and services (PMCS), which includes proper care and cleaning of equipment such as flight clothing and helmets. ALSS personnel must perform PMCS per the appropriate TM and establish inspections at prescribed intervals.

PREFLIGHT INSPECTIONS

2-41. Individual crew members must perform preflight inspections prior to flight; no special technical skills are required. Crewmembers must verify ALSE items are in serviceable condition, ensure inspection dates are current, and report any discrepancies to qualified ALSE personnel.

POSTFLIGHT INSPECTIONS

2-42. Individual crew members must conduct postflight inspections after each flight and notify ALSE personnel of any discrepancies.

SPECIAL INSPECTIONS

2-43. ALSE personnel must perform special inspections whenever conditions warrant. The inspector or directive determines the extent of these inspections, which usually are conducted per the appropriate TM. For example, equipment is inspected after exposure to dusty environments, CBRN agents, or other contaminants.

INITIAL ACCEPTANCE INSPECTIONS

2-44. ALSE personnel must inspect all newly acquired equipment to ensure serviceability and validate serial numbers. They also must inspect shipments to ensure all ordered components were received.

TURN-IN INSPECTIONS

2-45. ALSE personnel must inspect equipment and clothing to be turned in to supply shops or central issue facilities (CIFs). These inspections include properly identifying equipment serviceability and labeling items with appropriate materiel condition tags.

SERVICEABLE PARTS INSPECTIONS

2-46. ALSE personnel must perform serviceable parts inspections to determine whether parts removed from unserviceable equipment such as helmets, life preservers, and oxygen masks are serviceable.

COMMAND INSPECTIONS

2-47. Commanders and staff personnel must conduct formal and informal command inspections to determine equipment reliability and performance and gauge maintenance program effectiveness. Command inspections include periodic visits by an aviation safety officer and completion of aviation accident prevention surveys. The flight surgeon should monitor ALSS operations and assist in training the physiological and medical aspects of survival, as well as the fitting and use of ALSE by aircrew personnel. Commanders and ALSE personnel should use the FORSCOM ARMS checklist, available on the Army Knowledge Online website at <https://www.us.army.mil/suite/page/592726>, when conducting these inspections.

QUALITY ASSURANCE SPECIALIST (AMMUNITION SURVEILLANCE) INSPECTIONS

2-48. Each installation, activity, and command must establish and maintain a QASAS program according to AR 702-6, AR 740-1, DA PAM 385-64, and DA PAM 742-1.

GRAPHICS DISPLAYS

2-49. Status boards and inspection calendars are graphical tools that display data concerning ALSE status or shop operations. Although maintenance managers may have quick access to information through automation, well-planned and informative status boards and inspection calendars are highly visible information sources for commanders and other essential personnel.

STATUS BOARD

2-50. There are several methods for marking and identifying ALSE; however, what suits one unit may not be useful for another. One method for controlling and managing maintenance inspection programs is the ALSE status board (table 2-2, page 2-9). Information recorded on these boards is used to control current operations and plan and measure work performed. However, a status board is only as good as the information it contains; it must be current and accurate.

Table 2-2. Sample ALSE status board

Name	#	Helmet	Vest	Oxygen Mask	#	Survival Radio	Cold Kit	Hot Kit	Overwater Kit	Anti-exposure Suits	First Aid Kits	7-Man Life Rafts	Life Preservers
MAJ Frank	1	FEB	FEB	FEB	1	MAR	store	JUN	MAR	FEB	FEB	store	MAR
CPT Jack	2	JAN	JAN	JAN	2	APR	JAN	JUL	APR	JAN	JAN	APR	APR
CPT Baker	3	APR	APR	APR	3	MAY	MAR	FEB	MAY	MAR	APR	MAY	MAY
CPT Snow	4	MAR	MAR	MAR	4	AUG	MAR	JAN	AUG	MAR	MAR	AUG	AUG
CW4 Aldridge	5	FEB	FEB	FEB	5	SEP	APR	APR	SEP	APR	FEB	SEP	SEP
CW4 Case	6	OCT	OCT	OCT	6	NOV	FEB	APR	NOV	FEB	OCT	NOV	NOV
CW4 Ash	7	APR	APR	APR	7	JAN	MAR	JUL	JAN	MAR	APR	JAN	JAN
CW3 Brown	8	JUN	JUN	JUN	8	OCT	FEB	AUG	OCT	FEB	JUN	JAN	JAN
CW2 Taos	9	AUG	AUG	AUG	9	MAY	FEB	DEC	MAY	FEB	AUG	MAY	MAY
CW2 Sand	10	OCT	OCT	OCT	10	JUL	OCT	store	JUL	OCT	OCT	JUL	JUL
SFC Kurt	11	DEC	DEC	DEC	11	FEB	NOV	DEC	FEB	NOV	DEC	FEB	FEB
SGT Smith	12	APR	APR	APR	12	NOV	NOV	OCT	NOV	NOV	APR	store	NOV
APR-April AUG-August CPT-captain CW-chief warrant			DEC-December FEB-February JAN-January JUN-June			JUL-July MAR-March MAJ-Major NOV-November			OCT-October SEP-September SFC-Sergeant First Class SGT-Sergeant				

INSPECTION CALENDAR

2-51. The sample inspection calendar located in appendix C of this manual provides a quick reference for inspections and inspection due dates. A copy of this calendar should be located near the ALSE status board for easy access. The calendar includes 90-, 120-, 180-, and 360-day inspection intervals.

LOGISTICS AND MAINTENANCE ASSISTANCE

2-52. The United States Army Aviation and Missile Command (AMCOM), United States Army Combat Readiness/Safety Center, and United States Army Aviation Center of Excellence are source agencies from which general and specific ALSE materials may be obtained. Additionally, specific support organizations are detailed below.

PRODUCT MANAGER-AIR WARRIOR

2-53. The Product Manager-Air Warrior (PM-AW) vision statement is to “design, develop, and produce aircrew products that provide exceptional warfighting effectiveness, unparalleled mission versatility, increased aircraft lethality, and unmatched survivability while both sustainable and affordable. To have these products available becomes the choice of combat aircrews DOD-wide.”

2-54. PM-AW's mission statement is to “lead and build responsible, caring, and accountable government and contractor integrated product and process teams who safely design, develop, and produce the next generation of aircrew related warfighting systems and life support equipment for Army and DOD warfighters that save lives, enhance crew performance, and are combat effective, affordable, and sustainable worldwide.”

2-55. PM-AW may be contacted by mail at AMCOM, PM-AW, SFAE-SDR-AW, Redstone Arsenal, AL 35898-5000 online at <https://airwarrior.redstone.army.mil>. The AW website is a valuable resource for ALSE information; it is recommended that all ALSE shops have access to the site (user identification and a password are required).

AVIATION RESOURCE MANAGEMENT SURVEY

2-56. The ARMS is a FORSCOM program designed to provide aviation personnel with expert technical assistance and onsite evaluations as mandated by AR 95-1. Additional information, assistance, and the ARMS checklist may be found online at <https://www.us.army.mil/suite/page/592726>. Key ARMS proponent areas include, but are not limited to, the following:

- Maintenance.
- Supply.
- Safety (command support programs).
- Petroleum, oil, and lubricants.
- ALSE.
- Operations.
- Aviation medicine.
- Standardization.
- Training management.

SECTION V – REFERENCE MATERIALS AND ADMINISTRATIVE MANAGEMENT

2-57. The following areas cover reference and administrative management issues.

REFERENCE LIBRARY

2-58. Reference libraries must contain publications required to effectively manage unit ALSS maintenance management and training programs. Needed publications are listed within the reference section of this publication.

- AR 95-1.
- AR 190-11.
- AR 710-2.
- AR 735-5.
- AR 740-1.

TECHNICAL LIBRARY

2-59. ALSS shop technical files and libraries are required for all equipment; therefore, ALSOs must ensure publications subaccounts are established with the organization's publications manager. Publications must be readily available for reference and internal and external inspections.

MAINTENANCE LIBRARY UPDATE

2-60. Periodically, but not less than quarterly, publications files must be inspected to ensure complete, current publications are in use. AR 25-30 governs publications maintenance and contains the following information:

- Blank forms.
- Forms and publications (new, revised, changed, superseded, rescinded, and obsolete).
- Administrative publications.
- Manuals (doctrinal and training).
- Cross-references (alphabetic, national stock number [NSN], and line item number).
- Publications control officers.
- Installation publications control officers.
- Forms management officers (major commands).
- TMs.

PUBLICATIONS AGENCIES

2-61. There are four official Army publications agencies and one joint publication source from which ALSS personnel may obtain publications and forms online:

- Army Publishing Directorate, <https://www.armypubs.army.mil>.
- Army Central Registry, <https://rdl.train.army.mil/catalog/dashboard>.
- United States Army Logistics Support Activity (LOGSA), <https://www.logsa.army.mil>.
- United States Army Medical Department, <http://www.armymedicine.army.mil>.
- Joint Electronic Library, <http://www.jcs.mil/Doctrine/>.

CHANGED, REVISED, OR RESCINDED PUBLICATIONS

2-62. Effective ALSE maintenance requires the latest technical information be available at all times. ALSS personnel must ensure the ALSS shop has adequate quantities of current publications. Publications are continually updated; therefore, it is necessary to understand how the publications distribution system operates. DA PAM 25-40 provides information on posting and filing publications and explains the following:

- How initial distribution and resupply are made.
- Which DA forms are required to order publications.
- Where to order publications.
- How a publications account is set up.

INTERSERVICE PUBLICATIONS ACCOUNTS

2-63. United States Air Force publications may be obtained online at <https://www.my.af.mil/faf/FAF/fafHome.jsp>. Once a user establishes an account, they may access the technical order viewing library, which contains publications in electronic format.

2-64. United States Navy publications may be viewed digitally or paper copies requested at <https://mynatec.navair.navy.mil/>. Users must request a new user account to access or request publications.

MAINTENANCE MANAGEMENT FILES

2-65. As with any maintenance function, certain files must be maintained according to the Army Record Information Management System, AR 25-400-2, and local command policies. Files should consist of, but are not limited to, the following:

- Equipment improvement recommendations.
- Product quality deficiency reports.
- Standard Form (SF) 364 (Report of Discrepancy).
- Command directives.
- Inspections/surveys.
- Correspondence.
- Council meetings.

- Orders.
- Bulletins.
- Suspense files.
- Facsimile files.
- Maintenance records (per DA PAM 738-751).
- DA Form 2028.
- Budget files.
- Supply files.
- Training files.

ELECTRONIC PUBLICATIONS

2-66. The DOD objective is to automate all reference and administrative publications and documents into electronic format. ALSS personnel should utilize electronic technical manuals and other electronic publications and documents.

SECTION VI – EQUIPMENT ACCOUNTABILITY, RESPONSIBILITY, AND CONTROL

2-67. Property accountability and control is one of the greatest challenges facing company commanders, ALSOs, and ALSETs.

ACCOUNTABILITY AND RESPONSIBILITY

2-68. Commanders are responsible for keeping the unit's property in serviceable condition. They must emphasize that each person is responsible for all property in his or her charge, including items not listed in unit property books. Commanders also must ensure their Soldiers account for unit property. AR 710-2 and AR 735-5 contain Army policy for property accountability and responsibility. DA PAM 710-2-1 contains manual procedures for property accountability.

AMMUNITION AND EXPLOSIVES CONTROL

2-69. Commanders are responsible for controlling ammunition and explosives and other sensitive items within their units. AR 710-2 requires inventory for sensitive and Class V items. ALSE sensitive and Class V items are inventoried by quantity, lot number, and serial number (if applicable). After inventory is complete, the commander must sign a statement reflecting inventory results. For units without a property book, a copy of the inventory must be maintained and the original forwarded to the property book officer. Ammunition and explosives storage must be according to AR 190-11, SOPs, and local directives.

LOCK AND KEY CONTROL

2-70. AR 190-11 and AR 190-13 explain measures for lock and key control. Local physical security officers can assist in ensuring standards are met. A lock and key custodian must be appointed to ensure all unit keys and locks are handled properly. The lock and key custodian must maintain a record of locks and keys used by ALSS personnel on DA Form 5513 (Key Control Register and Inventory). AR 190-11 provides regulatory guidance for completion of DA Form 5513.

ACCOUNTABILITY AND CONTROL SPECIFIC TO AVIATION LIFE SUPPORT EQUIPMENT

2-71. ALSS personnel should possess and use the following publications to complete property accountability and control forms and records. They also should use these publications to become familiar with property accountability and security policies and procedures.

DEPARTMENT OF THE ARMY PAMPHLET 710-2-1 AND DEPARTMENT OF THE ARMY PAMPHLET 710-2-2

2-72. DA PAM 710-2-1 and DA PAM 710-2-2 provide detailed information on inspection and inventory procedures. Receipt and issue of property inventory, changes in responsible officer inventory, and annual responsible officer or cyclic inventory methods also are included. These publications also contain samples and instructions for completing the following forms:

- DA Form 2062 (Hand Receipt/Annex Number) for hand and sub-hand receipt procedures.
- DA Form 3161 (Request for Issue or Turn-In) and Department of Defense (DD) Form 1150 (Issue or Turn-In, Request For) for temporary hand receipts or change documents (issue or turn-in transactions).
- DA Form 3749 (Equipment Receipt) for equipment receipt procedures.

ARMY REGULATION 735-5

2-73. AR 735-5 contains vital information regarding accountability and responsibility. Accountability is a person's obligation to maintain accurate formal records. Responsibility is a basic obligation for the proper custody, care, use, and safekeeping of Government property. There are four types of interrelated responsibility: command, supervisory, direct, and personal. AR 735-5 also defines three types of property—nonexpendable, expendable, and durable—and covers accounting procedures for each type. If ALSS personnel experience loss of or damage to property in their care, AR 735-5 has information on methods for obtaining relief from responsibility through several systems.

OTHER IMPORTANT ARMY REGULATIONS

2-74. In addition to the publications listed above, ALSS personnel should have the following publications available for reference:

- AR 190-11. This publication provides information regarding the physical security of arms, ammunition, and explosives.
- AR 190-51. This publication provides information on marking Army property and securing storage structures, including the use of keys, locks, and chains.
- AR 710-2. This publication prescribes policy for supply operations below the wholesale level and is applicable in times of peace or war.

2-75. The ALSO, ALSNCO, or ALSET should maintain positive control of all ALSE items for inspection purposes. Local CIFs or supply facilities may issue, exchange, or control certain ALSE items. However, there must be a closed-loop system between these facilities and the ALSS shop to ensure equipment remains fully functional and conditions are accurately identified. The ALSS supervisor might need to discuss policies and procedures with these facilities to ensure condemned equipment is not reissued as serviceable. These facilities should not accept an ALSE item for turn-in or exchange unless it is tagged and signed by the ALSO, ALSNCO, or ALSET according to DA PAM 738-751. In addition, exchanged or issued ALSE items must be taken to the ALSS shop for proper inspection prior to use. The unit ALSS SOP must contain specific policies and procedures regarding CIF-issued items.

SECTION VII – DEPLOYMENT PLAN

2-76. This section assists ALSS personnel in preparing and supporting units deployed by land, sea, or air. Commanders and ALSS personnel should take the following steps to prepare their units for deployment:

- Review ALSS maintenance and historical records for upcoming services, inspections, component replacements, or deferred maintenance that might affect the unit's anticipated missions.
- Identify shortages in all classes of supply, order-replenishment quantities, and additional sustainment needs (parts might not be available at the deployed location).
- Coordinate priority assistance from test, measurement, and diagnostic equipment support facilities for calibration requirements.

- Ensure vehicle load plans have space for mission-essential equipment using standardized load cards.
- Ensure all property book items are listed on DD Form 1750 (Packing List) by line item and serial number.
- Determine transportation requirements beyond organic capabilities.

2-77. In addition to the steps listed above, self-deployment of aviation assets requires extended maintenance efforts during preparation and execution. To better support self-deployment, maintenance operations should consider and plan for the following:

- Not all the unit's aircraft and crews may be deployed. Aircraft used to perform missions at home station require routine maintenance. Support may be required to meet both the deployed and home station components' missions.
- Maintenance personnel may be required to perform primary duties as mechanics, component repairers, supply technicians, or inspectors, as well as additional duties as door gunners.
- Support services might not be established in the theater of operations for several weeks. Sufficient amounts of required supply classes, adequate test, measurement, and diagnostic equipment support, aviation ground support equipment, special tools, and repair parts may not be available immediately.

SECTION VIII – AVIATION LIFE SUPPORT EQUIPMENT RETRIEVAL PROGRAM

2-78. When an accident or mishap occurs, an investigator is responsible for analyzing how well the logistics support element or other protective clothing and equipment performed their respective jobs. If the investigator finds equipment did not operate as designed, they must further determine whether the item contributed to or caused injury.

2-79. All logistics support element and protective clothing and equipment that is in any way implicated in the cause or prevention of injury are recorded in the accident report. Air and ground items that caused injury, failed to function as designed, or were significant in preventing injury should be shipped to the United States Army Aeromedical Research Laboratory (USAARL) for further analysis. This equipment includes, but is not limited to, helmets, survival vests and components, body armor, crashworthy seat systems, restraint harnesses, inertial reels, seat belts, and air bags

2-80. Personnel with questions regarding which items should be shipped and what supporting documentation is required should contact USAARL. Before the field investigation is complete, the investigation board president arranges for shipment of equipment to: Commander, USAARL, ATTN: Crew Injury/Life Support Equipment Branch, Building 6901, P.O. Box 620577, Fort Rucker, AL 36362-0577. Equipment sent to USAARL for laboratory analysis must be noted on DA Form 2397 (Technical Report of U. S. Army Aircraft Accident Part I-Statement of Reviewing Officials). The user/wearer of each logistics support element/protective clothing and equipment item must be identified; items with multiple components (such as survival vests) should be counted as one item unless a component was separated from the item during the accident sequence. When analysis is complete, USAARL disposes of unserviceable items and return serviceable equipment to the unit of origin or supply system.

2-81. Upon request by the United States Army Combat Readiness/Safety Center, a copy of the completed laboratory analysis must be furnished for inclusion in the final accident report.

2-82. DA PAM 385-40 covers in detail the Aviation Life Support Equipment Retrieval Program.

Chapter 3

Supply and Materiel Management

This chapter covers supply and materiel operations required for sustainment of unit ALSS maintenance management and training programs. The Army's current ALSS inventory includes items from the Army, Air Force, and Navy. ALSS personnel must understand basic supply procedures to assist supply personnel in obtaining equipment and maintaining supplies required to support day-to-day functions. Commanders must ensure ALSS supply procedures are outlined in the unit SOP. Since most of the information needed for procuring ALSE is on compact disc, ALSS personnel must have available, or have direct access to, a computer capable of reading compact discs. AR 710-2, DA PAM 710-2-1, and DA PAM 710-2-2 address supply procedures and policies.

SECTION I – SUPPLY PUBLICATIONS AND FORMS

3-1. Certain information sources are required for ALSS personnel to provide supply personnel with correct and updated information.

INFORMATION SOURCES

3-2. The following information sources may be accessed online at <https://www.logsa.army.mil>.

3-3. The FEDLOG database—

- Lists cross-referenced NSNs, reference numbers, part numbers, and commercial and Government entity codes in alphanumeric sequence.
- Lists NSNs in national item identification number sequence.
- Contains the Army master data file (AMDF). The AMDF is the official source of current supply management data for items managed or used by the Army.
- The Defense Medical Logistics Standard Support Customer Assistance Module is a medical logistics ordering tool that enables operational units to monitor medical supplies (class VIII) and replenish levels when required. It automates the medical materiel supply process at lower levels of care and allows non-logisticians to electronically view and order from their supplier's catalog.

The following publications provide data and guidance regarding logistical procedures:

- AR 30-22 provides procedures to manage Class I supplies.
- AR 40-61 provides policy and procedures for Class VIII medical supplies.
- AR 190-11 provides physical security guidance for ammunition and explosives.
- AR 190-51 prescribes policies, procedures, and responsibilities for safeguarding unclassified Army property (sensitive and non-sensitive).
- AR 702-6 establishes policy and responsibilities, including demilitarization, for monitoring the performance, reliability, and safety characteristics of ammunition items and Class V components.

3-4. The following programs apply to conventional and chemical ammunition, small and large rockets, and guided missile ammunition and materiel:

- AR 710-1 prescribes uniform policies and procedures, guidance, and responsibilities for the development, preparation, publication, and maintenance of storage standards for materiel managed by the DOD, Government service agencies, and Coast Guard.
- AR 710-2 provides Army-wide supply policy below the wholesale level, as well as specific policy for establishing bench stock, shop stock, authorized stockage list (ASL), and operational loads.

- AR 735-5 provides policy and procedures for property accountability.
- AR 740-1 prescribes policy and procedures for the formation and management of materiel storage and supply operations.
- DA PAM 710-2-1 provides manual procedures for requesting, receiving, issuing, accounting for, and turning in supplies, as well as guidance for establishing and maintaining ASLs.
- DA PAM 710-2-2 provides manual procedures for establishing and maintaining shop stock and bench stock at the support maintenance level, as well as guidance for establishing and maintaining shop stock procedures.
- DA PAM 742-1 provides procedures to implement DA ammunition surveillance policies established in AR 702-6 and describes functions of the DA ammunition surveillance program as defined in AR 740-1.
- Supply catalogs provide data for identifying and managing items used by the Army.
- TB 9-1300-385 applies to all DA activities with mission responsibility and lists storage, issue, use, test, maintenance, and transportation of Class V materiel (to include restricted and suspended munitions) managed by the United States Army Operations Support Command and AMCOM.

FORMS

3-5. ALSS personnel must coordinate with their supply shops to complete the following forms (see DA PAM 710-2-1, DA PAM 750-8, and DA PAM 738-751 for use, preparation, and disposition):

- DA Form 581 (Request for Issue and Turn-In of Ammunition) and DA Form 581-1 (Request for Issue and Turn-In of Ammunition [Continuation Sheet]) are available electronically on the Army Publishing Directorate's website, <http://www.apd.army.mil/>.
- DA Form 2062 is used to record issue of nonexpendable and durable items (Army requirements code “nonexpendable” and “durable”).
- DA Form 2064 (Document Register for Supply Actions) allows personnel to record supply transactions. Quantities requested, received, adjusted, turned in, or due in are entered on one of three types of document registers: nonexpendable, durable, and expendable.
- DA Form 2765-1 (Request for Issue or Turn-In) is used to request expendable, durable, or nonexpendable single line items with NSNs listed in the AMDF (FEDLOG). It is also used to turn in all property except Class V items.
- DA Form 3161 is used to record issue and turn-in transactions between the property book officer, hand receipt holder, and sub-hand receipt holder. DD Form 1150 and DD Form 1348-1A (Issue Release/Receipt Document) may be used in lieu of DA Form 3161 as a change document if local procedures permit.
- DD Form 1348-6 (Single Line Item Requisition System Document, DOD [Manual-Long Form]) is used to request non-NSN single line items, NSN single line items not listed in the AMDF (FEDLOG), modification work orders and modification kits, classified items, and all exceptional data requests. Completion of DD Form 1348-6 is almost always mandatory for Air Force or Navy items not listed in the AMDF or those requiring exceptional data.
- DD Form 448 (Military Interdepartmental Purchase Request) is used by installation and command supply shops to support DA Form 2765-1 or DD Form 1348-6. DD Form 448 may be required for items such as life rafts and oxygen testers obtained from the Air Force or Navy.
- SF 364 is used by ALSE personnel when supplies are defective or damaged due to shipping or packaging.
- SF 368 (Product Quality Deficiency Report) is completed and submitted by ALSE personnel when received items, parts, or components display a manufacturer deficiency or error. DA PAM 738-751 covers the preparation, use, and disposition of SF 368.
- SF 368 is also used to make recommendations to improve equipment performance and maintenance. Personnel preparing an SF 368 for use as an equipment improvement recommendation should check AR 672-20 for provisions regarding suggested improvements and monetary incentives. DA PAM 738-751 covers the preparation, use, and disposition of SF 368.

SECTION II – SUPPLY PROCEDURES

3-6. Requisition management must comply with command supply discipline program.

SUPPLY CLASSES

3-7. Table 3-1 provides definitions and examples of the 10 supply classes.

Table 3-1. Supply classes

Class	Definition
Class I	Subsistence items and gratuitous health and welfare items (M-rations, meals ready to eat, and fresh fruits and vegetables)
Class II	Equipment other than principal items prescribed in authorization and allowance tables (individual equipment, clothing, tentage, tool sets, and administrative supplies)
Class III	POL, further defined as packaged and bulk POL; Class III (packaged) includes hydraulic and insulating oils, chemical products, antifreeze compounds, and compressed gases; Class III (bulk) includes multifuels and gasoline
Class IV	Construction and barrier materials (lumber, sandbags, and barbed wire)
Class V	Ammunition such as small arms, artillery projectiles, antitank missiles, explosives, mines, bombs, and special ammunition such as chemical and nuclear munitions
Class VI	Personal demand items normally purchased through the exchange system (such as candy and cigarettes); Class VI items are normally requisitioned and distributed with Class I items
Class VII	Major end items (vehicles, self-propelled artillery pieces, missile launchers, aircraft, and major weapons systems)
Class VIII	Medical materiel (medicine, stretchers, surgical instruments, and medical equipment repair parts)
Class IX	Repair parts and components (kits and assemblies) and items required for support of all equipment (batteries, spark plugs, and fuel lines)
Class X	Materiel required to support civil affairs operations (such as commercial design tractors for use by local civilians)
POL- petroleum, oil, and lubricants	

AUTHORIZED REPAIR PARTS STOCKAGE

3-8. This section looks at principles that need to be applied when determining proper parts stockage and appropriate levels.

BENCH STOCK

3-9. Bench stocks consist of low-cost, high-use, consumable Class II, Class III (packaged), Class IV, and Class IX (fewer components) items. Examples include common hardware, resistors, transistors, capacitors, wire, tubing, hoses, ropes, webbing, thread, welding rods, sandpaper, gasket materiel, sheet metal, seals, oils, grease, and repair kits. The commander or designated representative conducts a semiannual review of the bench stock. No specified demand criteria exist that units must meet to add line items to the bench stock list.

3-10. Bench stocks are demand supported; units do need a certain number of demands for an item to remain on bench stock. Maintenance activities with a collocated supply support activity (SSA) maintain a 15-day supply of bench stock; activities without a collocated SSA or field maintenance unit system maintain a 30-day supply.

SHOP STOCK

3-11. Shop stocks are comprised of demand-supported repair parts and consumables stocked within a support-level maintenance activity with a support-level maintenance mission authorized by an MTOE, TDA, or joint table of allowances. These repair parts are used internally by the maintenance unit to accomplish maintenance requests or programmed repairs. AR 710-2 covers criteria for the number of demands required and items authorized to fulfill shop stocks.

AUTHORIZED STOCKAGE LIST

- 3-12. The ASL is a list of all items authorized to be stocked at specific levels to meet the logistics needs of supported aviation customers.
- 3-13. The supporting SSA ASL is the supply source from which aviation units may replenish their stockage of shop stock items to authorized levels. The supporting SSA also provides a direct exchange service for repairable components.
- 3-14. The ASL is a list of all items authorized to be stocked at a specific level of supply to meet the needs of the aviation customers they support. The supporting SSA ASL becomes the source of supply (SOS) from which aviation units can replenish their stockage of parts and components to authorized levels.
- 3-15. ASL items are maintained by the aviation support battalion SSA to support and complement aviation maintenance unit stock shop. The ASL is the SSA authority to stock the item and is controlled and flexible. It shows items proven, by experience, to be sufficiently active at an SSA to warrant stockage. The ASL also contains other items with a projected need.

ADMINISTRATION

- 3-16. Commanders and ALSOs must be fiscally responsible. ALSOs should conduct a daily review of maintenance activities to ensure effective and efficient practices are utilized that aid in keeping costs to a minimum and possibly lead to cost reductions.

STANDARD OPERATING PROCEDURES

- 3-17. Class II, Class III, Class VII, Class VIII, Class IX, and Class X repair parts SOPs must be written and updated to incorporate latest changes. ASL sections are usually under one supply system, and SOPs must reflect the system the command uses. Procedures specified in SOPs must conform to all applicable guidance in governing regulations, directives, and policies. SOPs should be used as a day-to-day management tool by all personnel affiliated with maintenance operations. AR 710-2 is helpful when writing supply SOPs.

IDENTIFICATION LIST

- 3-18. Identification lists include narrative and illustrative descriptions of stocked items. Identification lists may be found by locating an item's federal supply classification in SB 708-21 (the federal supply classification is the first four digits of the item's NSN).

FEDERAL LOGISTICS INFORMATION

- 3-19. The FEDLOG database provides aircraft maintainers and aviation logisticians with the ability to identify items in the inventory and order the correct aircraft part/component.
- 3-20. FEDLOG is for official use only products. Cataloging for all services has been consolidated under the Defense Logistics Information Service. FEDLOG information is contained on disk. Aircraft maintainers and logisticians can query FEDLOG, using the digital versatile discs, to obtain management data, part and reference number data, freight data, supplier data, characteristics data, and representative drawing data. FEDLOG is also available on a digital video disk and the internet. Aviation unit personnel contact the unit publications officer or noncommissioned officer in charge to request a subscription to FEDLOG. Disks must be rendered unreadable before disposal or recycling.

Note. FEDLOG is available directly through the LOGSA logistics information warehouse main page at <https://www.logsa.army.mil>.

- 3-21. With data obtained from FEDLOG, technical supply personnel can—
- Process and edit customer requests.
 - Ensure NSN and part number accuracy of repair parts received.

- Update stock records.
- Ensure accuracy of inventories.
- Process receipt of aircraft repair parts/components.
- Facilitate Class IX (Air) budget reconciliations by verifying dollar-cost value of newly processed aircraft repair requests as well as verifying dollar credits received for unserviceable turn-ins.

3-22. Subscription information or questions regarding FEDLOG should be direct to USAMC, Logistics Support Activity, ATTN: AMXLS-MLA Building 5307, Redstone Arsenal, AL 35797-7466 or email fedlog@logsa.redstone.army.mil.

LOGISTICS AND ACQUISITION OF AVIATION ORGANIZATIONAL CLOTHING AND INDIVIDUAL EQUIPMENT

3-23. The Defense Supply Center Philadelphia (DSCP) is an inventory control point within the Defense Logistics Agency (DLA). The DSCP provides food, clothing, textiles, medicines, medical equipment, and general and industrial supplies and services to America's warfighters, their eligible family members, and other non-DOD customers worldwide.

3-24. DSCP's role is to support logistics and acquisition of aviation organizational clothing and individual equipment. The DSCP website valuable information for ALSOs, logistics staff officers (S-4s), and CIF managers. The "customer links" section contains search tools used to locate individual flight equipment items by entering an NSN or item description (nomenclature). The following information may be obtained through the site's search tools:

- NSNs.
- Sizes.
- Acquisition advice codes.
- DSCP item manager points of contact.

3-25. Questions, comments, and suggestions regarding this issue may be directed via e-mail to forscompoc@forscom.army.mil.

DOCUMENTATION

3-26. Requests for equipment must be documented on DA Form 2064, which should then be maintained as a record of request. Supply personnel can provide document numbers, due-in status, and supply status. Turn-ins from the ALSS shop must be documented on DA Form 2064 when completed at the unit level or DA Form 3161 when completed by the property book officer. Personnel must retain a file copy when using supply forms.

DOCUMENT REGISTER

3-27. DA Form 2064 is used to record supply transactions. Quantities requested, received, adjusted, turned in, or due in are entered on one of three types of document registers: nonexpendable, durable, and expendable. Only units authorized to submit supply requests to a direct support unit may use the expendable register. The property book officer designates by memorandum those elements within a unit authorized to request expendable supplies. Memorandums must specify the supply class, DOD activity address code, and document serial numbers the element uses. DA PAM 710-2-1 contains policies and procedures for maintaining document registers.

AUTHORIZATION TO REQUEST AND SIGN FOR SUPPLIES

3-28. Office management files must include a copy of assumption of command orders or appointing memorandums. A minimum of three copies must be sent to each direct support unit from which supplies are drawn, along with an accompanying DA Form 1687 (Notice of Delegation of Authority-Receipt for Supplies) for requesting and signing for supplies. The office must retain one copy and send two copies to the direct support unit (one copy each for the editing and issuing/receiving sections). If possible, different people should

be designated to perform these actions. DA PAM 710-2-1 and AR 725-50 outline procedures to reduce potential fraud, waste, and abuse.

REQUISITION

3-29. Local procedures regarding how unit personnel request equipment and repair parts from supply sections differ throughout the Army. Commanders may require requests to be made on memorandums or official supply forms. Regardless of these procedures, ALSS personnel must be able to provide the following information to supply personnel:

- NSNs.
- Part numbers.
- Nomenclatures.
- Supply sources.
- Acquisition advice codes.
- Materiel category structure codes.
- Sources of information (Army logistics, FEDLOG, or medical category).
- Publications, pages, paragraphs, figures, and/or item numbers.
- Units of issue.
- Quantities.
- DOD identification codes and Class V items.

PRIORITY

3-30. The uniform materiel movement and issue priority system must be determined before repair parts are requested. The unit's force activity designator (found in the unit's permanent activating orders) and urgency of need designator determine request importance. Commanders are responsible for assigning priority designators; they or a delegated representative must review all requests with urgency of need designators of A or B. Urgency of need designator tables are provided in DA PAM 710-2-1.

SCREENING AUTHORITY

3-31. The unit commander must designate in writing which section personnel have authority to screen repair part requests. The individual authorized to process requests should first check each request for correct priority designators. Then they also must initial DA Form 2064 and DA Form 2765 (Request for Issue or Turn-in) or DA Form 2765-1 and approve all high priority (01 through 08) requests.

SUPPLY STATUS

3-32. Supply status informs requesters of the supplier's decision on a specific supply request and is provided by the direct support unit via status cards, listings, or disk. Supply status is noted using status codes found in DA PAM 710-2-1.

SUPPLY MANAGEMENT

3-33. All available diagnostics equipment should be used to determine the causes of malfunctions before parts are replaced. The accomplishment of training and mission objectives within available resources depends upon reducing dollars spent on repairable part replacement. This reduction requires that unserviceable and economically repairable parts be repaired at the lowest level possible, if not precluded by policy or capability. Fault repair requires a mechanic or technician to perform an initial, accurate diagnosis of all equipment, component, assembly, and subassembly malfunctions; order repair parts; and make repairs immediately. This process ensures users do not waste manpower resources troubleshooting failures and replacing components needlessly.

EQUIPMENT, COMPONENT, SUPPLIES, AND MATERIEL STORAGE

3-34. ALSE, support equipment, components, supplies, and other materiel must be stored according to the item's appropriate technical publication per AR 95-1, AR 190-11, AR 710-2, DA PAM 385-64, and DA

PAM 710-2-1. Pyrotechnic storage and inventory must follow guidance in ammunition and explosive standards and local policies. Flammables must be stored according to existing DOD, command, and local policies and regulations. All cabinets, bins, and storage facilities must be marked to identify equipment, components, supplies, and materiel stored within them. In addition, ALSS maintenance program managers must ensure, initiate, and maintain appropriate updated inventory documentation.

3-35. Suitable storage racks, cabinets, and shelves should be fabricated or purchased to accommodate specific equipment. Storage shelves should be free from rough or abrasive materials and splinters. Wood or metal shelves may be covered with rubber matting or tile. Hangers should be constructed of wood or heavy plastic material. Equipment storage areas must be well ventilated, out of direct sunlight, and adequately lit. To reduce mildew and corrosion, storage areas are climatically controlled from 60 degrees Fahrenheit (F) to 75 degrees F at less than 60 percent relative humidity. Lockable storage cabinets must be provided to secure ALSE and support equipment.

SECTION III – AUTOMATED SUPPLY MANAGEMENT

3-36. The Army logistics information system is a functional information management system designed to provide the logistics support infrastructure required for military ground and aviation operations. The technical goal is to establish a seamless and interoperable network. The logistic information system network facilitates the vertical and horizontal flow of sustainment and maintenance status information to units Army-wide.

GLOBAL COMBAT SUPPORT SYSTEM-ARMY

3-37. GCSS-A contains the functionality associated with supply, maintenance, property, and tactical finance. It is an integrated system where users with access and permissions can perform their missions regardless of their position in the Army structure or location throughout the world. GCSS-A incorporates finance, supply below national level, property book, unit supply, and ground maintenance functions into one system. It touches nearly every logistics initiative being worked in Army logistics, including programs such as unique item identification, condition based maintenance, in-transit visibility, and product life cycle management.

3-38. GCSS-A, Increment 1, Wave 2 has replaced the Standard Army Retail Supply System. It is in the process of replacing tactical enterprise logistics systems, and automated capabilities such as the Standard Army Maintenance System (SAMS), and Property Book Unit Supply Enhanced (PBUSE). Its core functionality is based upon ARs, DA PAMs, FMs, TMs, TCs, bulletins, directives, policies, and procedures governing supply support activities, unit supply rooms, shop supply rooms, and property book offices. Until GCSS-A, Increment 1, Wave 2 is fully fielded, SAMS and PBUSE are addressed within this publication as SAMS/GCSS-A and PBUSE/GCSS-A.

3-39. Enterprise-wide forecasting, planning, and scheduling tools provide the capability to track transactional data to link customers and suppliers for more efficient supply chain management. Commanders can verify operations readiness in real time and near real time by tracing logistics information originating with the supported unit's purchase order, through the entire supply chain until the unit receives the requested items. Materiel managers can monitor and/or process on-hand stocks, requirements determination, procurement, maintenance of stock, maintenance, disposal, retrograde, and distribution of materiel.

Note. The GCSS-A website is located at <http://www.gcss.army.mil/>.

ROLES AND PERMISSIONS

3-40. Security and user roles dictate what an individual can see and do while in GCSS-A. These roles are divided vertically between management and clerical and horizontally between office and warehouse. Roles determine what a user can see or do because user roles are defined by organizational element. For example, an SSA cannot process transactions for a unit storage location and a unit cannot process transactions for an SSA storage location. Each user role is authorized to execute a specific combination of transactions and only those transactions relevant to that user's level of responsibility. Some users may perform duties which require multiple user roles and permissions.

TYPE UNIT CODE

3-41. GCSS-A established business rules to influence the behavior of various levels of operations. Maintenance, property book, tactical SSA, unit supply, and installation SSAs activities are assigned a type unit code that restricts which classes of supplies can be ordered by the functional activities as well as for defining the flow of requisitions. The intent of the rules is to enforce supply discipline in an automated fashion.

SUPPLY OPERATIONS ASSESSMENTS

3-42. Materiel managers must continually evaluate supply support, through supply operations assessments, to determine trends, isolate deficient areas, and correct deficiencies. An operations assessment is a process that evaluates several categories of performance, including, but not limited to, customer service, inventory accuracy, space utilization, facility layout, automation equipment utilization, general housekeeping, and safety. Areas which do not fall within acceptable ranges receive intensive review and management. Commanders and materiel managers can filter and tailor any GCSS-A report to meet the specific needs for any assessment. The following is a sample listing of tailorable, near real time reports with recommended use of the report for monitoring logistics operations:

- At the brigade level, use the equipment status report to aggregate supply and maintenance data to give commanders a combat power perspective for readiness.
- Battalions, using a maintenance dashboard, can reference equipment readiness data consisting of supply status, stock shop posture, fault management, and work order management to make critical materiel decisions.
- Commanders, unit supply sergeants, and property book officers can trace supply transactions through a daily activity report. Using the daily activity report capability, commanders can trace whether assets increased or decreased, serial number changes, reason for change, type of movement, beginning dates, ending dates, closed transaction dates, document numbers, form number and document identification codes.
- Commanders, property book officers, unit supply sergeants and the S-4 use the unit equipment readiness listing to analyze equipment readiness for unit status reporting. Users can tailor this report to view equipment shortages, excess, supply status, document number and planned ship dates.
- SSA accountable officers and support operations officers can use the customer satisfaction report to monitor compliance with DA performance metrics and to perform various analytics for monitoring a SSA's performance.
- SSA accountable officers and support operations officers can monitor SSA daily performance using the supply performance report. It displays supply statistics for one or more storage locations of supply support activities.
- SSA accountable officers and support operations officers manage overage reparable using the overage reparable/recoverable management report.

SECTION IV – LOGISTICS SUPPORT ACTIVITY

3-43. Logistics support activity provides the following automated systems to Army Aviation managers. This ensures that managers have the logistics intelligence needed to provide the logistic needs to the warfighter.

LOGISTICS INTEGRATED DATABASE

3-44. The LOGSA is a leveraging technology that provides immediate access to many logistics web-based tools including the logistics integrated database (LIDB), the parts tracker, and other capabilities. LOGSA products and services include sustainment tools in support of equipment readiness for users, maintainers, and managers of the Army aircraft systems, subsystems, and weapon systems. LOGSA tools independently and collectively contribute to the Army transformation goals in reducing the logistics support footprint.

3-45. The LIDB stores national and tactical historical information and provides real-time status of Army readiness, requisition, supply, and maintenance and asset information to customers worldwide. The information needed to equip, arm, move, and sustain Soldiers and fix and fuel their equipment and corresponding systems can be accessed from one central source using one log-on identification and password. A LOGSA system access request form must be completed to gain access to LIDB support functions. This form can be located at <https://www.logsa.army.mil>. The logistics portal to access web sites from DOD, DLA, General Services Administration, is located at <http://www.dla.mil/LandandMaritime/Business/Customer-Support/LandCustomers/Links-and-Job-Aids/>.

3-46. LIDB uses modules or file folders to segregate the volumes of data into user-friendly packages. Primary modules are located on the main menu screen under the headings “Query Database” and “Decision Support.”

3-47. From the main menu, double click on the “Query Database” menu icon. Once the “Query Database” menu is opened, the user can access modules and maintenance and logistics support management information critical to all aviation maintenance commanders/leaders, maintenance officers/technicians, and maintainers.

PUBLICATIONS MODULE

3-48. The publications module identifies all equipment publications required to maintain each Army end item. This module provides aviation maintainers with the critical references needed to conduct by-the-book maintenance. This module also allows access to the following:

- A list of TMs, technical manuals, SBs, modification work orders, and supply catalogs.
- A list of publications for the major components appearing in the equipment component of end items, BIIs, and RPSTL.
- Information found in AR 25-30, as well as command-authenticated publications (sustainment maintenance work requirements).
- A two-section list, one listed by line item number and NSN sequence and the other by publication number.

MAINTENANCE MODULE

3-49. The LIDB maintenance module contains data on completed maintenance actions reported from field and sustainment units and activities from the total Army.

3-50. The LIDB maintenance module includes a history of each maintenance action as it progressed through the maintenance process. This history allows maintenance managers to determine time spent in a particular status such as awaiting parts, in shop, awaiting pickup, or in initial inspection. This maintenance history is useful in determining what affects downtime in the maintenance system. It also provides a listing of all parts used during a maintenance action. The LIDB maintenance module can generate reports on an entire item for a particular owning/support unit identification code or Army command or to a specific serially numbered end item.

RETAIL DEMANDS MODULE

3-51. The retail demands module contains all demands from units throughout the Army. Customers have access to data depicting repair parts' consumption rates and demands and costs for specific end items/repair parts. This information can be tailored for an individual unit-assigned DOD Activity Address Code.

3-52. The module provides historical retail demand data generated from requesting units throughout the Army. The database is the Army central repository for all individual requests of issue generated at the organizational level.

3-53. The field systems that feed LIDB are the technical, Standard Army Retail Supply System, Army Materiel Command Installation Supply System, and SAMS. Customers can query by end item code, DOD activity address code, national item identification number, installation, geographic area, and Army command/division.

ITEM INFORMATION MODULE

3-54. The item information module is the official Army catalog of Army-managed and Army-used items. These data provide information about all classes of inventory items critical to requisitioning, maintenance, and disposal of aircraft repair parts and components.

Note. Information about an aircraft repair part or component interchangeability/substitutability can also be accessed from this module.

3-55. The line item number report, national item identification number report, reference number report, and AMDF report can be retrieved from the item information module. The AMDF reports include the item data, national item identification number detail, interchangeability and substitutable data, component data, equivalent item data, order-of-use data, freight data, packaging data, medical user data, special Army data, and automatic return item list data.

SUPPORT ITEM REQUIREMENTS DATA

3-56. The support item requirements module provides data for parts used on end items, compares end-item part applications, and develops repair part requirements for support of end items in peacetime and contingency. Related program information on supply-related products and services follows. These products and services include repair parts to end item application, peculiar item and reverse support list allowance computation, and recommended authorized to forecast/stock shop.

3-57. The support item requirements module offers “the spare/repair parts to end item application,” in addition to some new capabilities in an online environment. Current data are provided because the LIDB is continuously updated as new information is received.

3-58. Another helpful feature for aviation maintainers conducting lateral and vertical searches of aircraft repair parts is a report that compares two end items and identifies parts peculiar to each and parts found on both. This information is useful for identifying common or individual repair part applications.

3-59. The module also allows the user to compare an end item to a list of end items. This comparison is known as a reverse support list allowance card. The user can also compare an end item to a list of end items and the authorized to forecast to identify candidates for deletion or stock-level reduction that result from the loss of a supported end item. This comparison is known as a tailored reverse support list allowance card. These reports can be printed or saved in word-processing, spreadsheet, or database formats for local use.

PIPELINE MODULE

3-60. The “pipeline” is the area within the LIDB where the user can find information regarding customer and requisition wait time, velocity management, and retrograde in-transit visibility. The pipeline is a centralized database providing visibility of supply and transportation actions for requisitions placed by aviation units that are unfillable by the supporting aviation support battalion SSA and, ultimately, passed to the wholesale system to be filled.

3-61. As materiel moves through the pipeline worldwide, automated supply and transportation systems feed the current status on the requested materiel’s location to the pipeline. The pipeline provides a quick reference to requisition status, shipping information, and receipt of materiel requisitioned by the requesting unit.

3-62. A pipeline inquiry is available via Web Logistics Integrated Database and Web Logistics. It may also be accessed through other DLA web links. The pipeline serves as the Army’s single database for supply and transportation actions according to military standard requisitioning and issue procedures, AR 725-50, and applicable DOD transportation regulations.

Chapter 4

Aviation Life Support Equipment Shop

This chapter discusses the details of the aviation life support equipment shop. Commanders must evaluate shop space and select an area that supports their ALSS shop maintenance program.

CONTENTS

4-1. ALSS shop design and square footage is based on unit size and equipment density and type. Shop layout should provide protection from pilferage, dampness, fire, dust, insects, rodents, and direct sunlight. Layout also should restrict access to ALSS personnel only. Shops without internally plumbed oxygen may have floors constructed of organic or inorganic materials such as concrete that can be painted or covered with tile. To reduce the amount of combustible materials, shops with internally plumbed oxygen should have floors constructed of unpainted inorganic materials such as concrete or ceramic tile. These measures reduce the possibility of fire should an oxygen leak occur. Additional information may be found in chapter 11, TM 1-1500-204-23-1.

4-2. Selection is a critical factor that allows ALSETs suitable space to perform their daily duties, which include equipment inspection and maintenance. In addition, potential shop sites should provide adequate space for—

- Use and storage of support equipment.
- Storage of repair parts and components.
- Storage of medical supplies.
- Storage of expendable and consumable materials (including hazardous material [HAZMAT]).

4-3. Shop layout should incorporate areas for a computer, printer, and hardware. Computers should have access to Internet connections.

LOCATION

4-4. ALSS shops should be located in an area removed from excessive vibration, noise, and dust. Entrances should be limited and preferably have a controlled-entry door or counter for equipment issue and initial inspection.

WORK AREA

4-5. Workbenches must be free of rough or abrasive materials and splinters. Bench tops should be constructed of nonporous material resistant to chipping and peeling. Benches should contain drawers for storing tools and small parts. Work areas should be well lit and contain easily accessible electrical outlets. Benches in oxygen-equipped ALSS shops should be outfitted with individual explosion-proof lighting. Additional ALSS shop and work area criteria may be found in TM 1-1500-204-23-1. A sample work area is depicted in figure 4-1 (page 4-2).

4-6. Work areas should be accessible to hot and cold running water for equipment cleaning. A stainless steel basin should be installed in oxygen-equipped ALSS shops for cleaning breathing equipment.



Figure 4-1. Sample work area

STORAGE AREA

4-7. Storage racks, cabinets, and shelves should be fabricated to accommodate specific equipment. Storage shelves should be free of rough or abrasive materials and splinters. Wood or metal shelves may be covered with rubber matting or tile. Hangers should be constructed of wood or heavy plastic material. Storage areas are well ventilated, out of direct sunlight, and well lit. Lockable storage cabinets should be provided to secure test equipment, tools, other equipment, and supplies. A sample storage area is depicted in figure 4-2.



Figure 4-2. Sample storage area

FITTING AREA

4-8. Fitting areas must be well lit and allow adequate space for personnel to be fitted with equipment such as vests, helmets, and harnesses. A 60-square-foot (4-foot by 15-foot) area allows space for fitting one person at a time. The fitting area should be located in the work area, as depicted in figure 4-3.



Figure 4-3. Sample fitting area

OFFICE SPACE

4-9. A desk and other administrative equipment and supplies should be located near the shop entrance. Charts, status boards, graphs, records, and administrative supplies should be placed within reach of the desk for ease of maintenance management and record keeping, as depicted in figure 4-4.



Figure 4-4. Sample office space

SUPPORT EQUIPMENT

4-10. Support equipment required to maintain ALSE varies throughout the Army due to differing geographical areas and mission requirements. Basic equipment such as hand tools, test sets, refrigerators, vacuum sealers, sewing machines, and microwaves are common among all units. It should be noted, however, that there are no standard or authorized ALSE tool kits currently in the Army inventory. Specialized equipment used to maintain flotation and oxygen equipment is specified in appropriate TMs. Equipment manuals also list common tools required to perform maintenance in maintenance allocation charts. A sample of commonly used support equipment is depicted in figure 4-5.

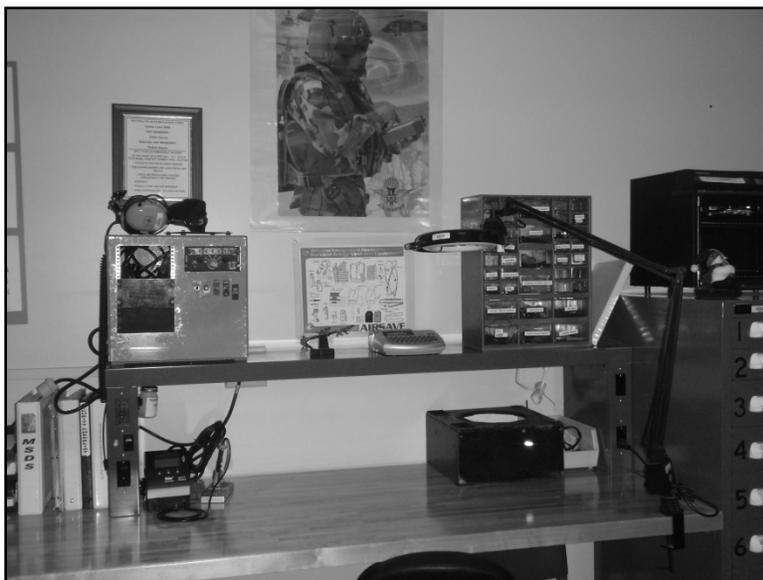


Figure 4-5. Sample support equipment

ENVIRONMENTAL CONTROL

4-11. Adequate heating and air conditioning systems are required in ALSS shops to prevent damage to equipment and supplies (especially medical supplies) from mildew, hot and cold extremes, and contamination from dust, dirt, and other foreign material. Temperature should range between 60 degrees F and 75 degrees F at 60 percent relative humidity and with the provision of filtered air. ALSS shop establishment is critical during deployments; all shops must meet the requirements noted above, if possible, depending upon location and available work shelters and storage areas.

PERSONAL HYGIENE

4-12. ALSS personnel should present a neat and clean appearance at all times. Smoking, eating, and drinking are not permitted on or around workbenches. Personnel with skin diseases or contagious viral infections must not be allowed to work in ALSS shops. Unit safety personnel and a representative from the flight surgeon's office must periodically inspect shops according to regulations and unit SOP.

SHOP SAFETY

4-13. Safety practices and procedures must be followed according to AR 385-10 and unit SOP. Specific safety precautions pertaining to flotation, survival, and medical and oxygen equipment are discussed in each specific item's reference publications.

Chapter 5

Aviation Life Support System and Survival Training Programs

ALSS and survival training programs are planned, developed, administered, and documented by school-qualified ALSOs, with assistance from ALSNCOs or ALSETs.

OVERVIEW

5-1. ALSS and survival training must be conducted according to AR 95-1, AR 350-50, and this TC. The following additional reference materials and websites should be considered when planning, developing, and administering ALSS and survival training programs:

- Air Force Regulation 64-4.
- FM 3-05.70.
- ATP 5-19.
- TC 21-3.
- TC 21-21.
- Joint Services Air Land Sea Applications Center.
- United States Army Institute for Professional Development-Correspondence.
- United States Air Force Rescue Coordination Center.
- Defense Prisoner of War/Missing Personnel Office.
- Defense Supply Center-Maps Facility.
- Joint Services Electronic Library.
- Doctrine/United States Navy Survival, Evasion, Resistance, and Escape School.
- Defense Visual Information.

5-2. Additional electronic media and training materials may be requested through PM-AW's website or by contacting the PM-AW logistics section via e-mail at aw-web@peoavn.redstone.army.mil. Requests may also be sent via standard mail to: Interactive Multimedia Instruction, Army AMCOM, SFAE-AV-AES-L, Redstone Arsenal, AL 35898-5000.

RESPONSIBILITIES

5-3. All new crew members must receive an equipment briefing and orientation during their initial ALSE inspection and fitting.

AVIATION LIFE SUPPORT SYSTEM TRAINING PROGRAM

5-4. The ALSS training program must be conducted annually and include the following subject areas:

- Aircrew body armor.
- Flight helmets.
- Flight clothing.
- Aviation survival kits and components.
- First aid kits.
- Survival vests and components.
- Aircrew restraint harnesses.

- Survival transmitters and receivers.

5-5. The following areas should be trained annually to personnel assigned to units with specific missions related to or operating in specific areas or environments:

- Carried and worn subcomponents.
- Antiexposure suits.
- Oxygen systems.
- Flotation equipment.
- Overwater equipment.
- Protective equipment.
- Survival training.

5-6. In addition, ALSOs must ensure all crewmembers are trained annually in the following subject areas:

- Operator care and use of flight helmets, survival vests, survival radios, protective flight clothing, aircraft survival kits, first aid kits, emergency locator beacons, and aircrew CBRN protective equipment.
- Unit CIF procedures (issue, direct exchange, and turn in).
- Aircraft emergency egress devices and methods.

OVERWATER SURVIVAL TRAINING

5-7. Overwater survival is an integral part of aviation operations for crew members required to perform missions beyond the glide distance of land. Overwater survival training is comprised of three components: shallow-water egress trainer, modular egress training simulator, and emergency breathing system. Helicopter crews performing overwater operations requiring flotation devices or deck landing operations should be shallow water or modular egress training simulator qualified and current and carry an approved emergency breathing system. These crew members must also meet currency requirements according to AR 95-1 or appropriate regulations. Overwater survival training should be incorporated in the initial flight training syllabus.

DESTRUCTION OF EQUIPMENT TO PREVENT ENEMY USE

5-8. The following paragraphs provide information regarding destruction of ALSE to prevent enemy use. They are intended to be an aid to commanders, aviators, crew members, ALSE personnel, and staff members planning and conducting such training. Training should focus on the points listed below as well as predicted operating environments; survival, evasion, resistance, and escape; and other aspects of isolated personnel/personnel recovery.

5-9. The decision for downed crews to destroy ALSE is a “final event driven action” made if capture by enemy forces is imminent. ALSE is vital to a downed crew member's survival, evasion, and safe recovery, as well as maintaining radio communications with rescue forces and other crew members. Captured ALSE might be used by enemy forces to deceive and ambush rescue aircraft or other evaders. ALSE also might provide enemy intelligence officers with information regarding the crew's origin and unit's survival equipment ensemble.

AUTHORITY TO DESTROY EQUIPMENT

5-10. Crews must be briefed on specific instructions for destroying downed aircraft and equipment before conducting missions in hostile or combat areas.

5-11. Theater special instructions must contain provisions for destruction of downed equipment. The intelligence staff officer (S-2)/S-3 section is responsible for conducting special instructions briefings before combat missions. Units must incorporate these procedures in their tactical SOPs.

5-12. Theater commanders have authority to destroy aircraft to prevent enemy capture. Downed crews are responsible for making the equally sensitive decision to destroy ALSE.

PROCEDURES FOR DESTROYING AVIATION LIFE SUPPORT EQUIPMENT

5-13. TM 750-244-1-2 contains procedures for destroying ALSE. If ALSE cannot be evacuated to safe areas or capture by enemy forces is imminent, it should be destroyed beyond repair and use.

5-14. Time constraints may prohibit an easy or safe destruction method. The most common technique is destruction by fire, with destruction by explosives second.

5-15. If engineer equipment is available at base camps under enemy attack or control, ALSE may be buried deep in the ground. Deep lakes, rivers, and ponds also may be used to safely hide ALSE.

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Appendix A

ALSS Maintenance Management and Training SOP

A-1. This appendix is designed as a reference to assist units in developing SOPs related to ALSS maintenance management and training programs. Table A-1 provides a sample ALSS SOP.

Table A-1. Sample ALSS SOP

<p>1. SUBJECT. The subject of this SOP is (unit name) ALSE system maintenance management and training programs.</p> <p>2. GOAL. The goal is to inform all Soldiers in the (unit name) of compliance requirements with ALSE regulations and policies.</p> <p>3. STANDARDS</p> <p>a. References. ALSS maintenance management and training programs within the (unit name) will comply with the following references:</p> <ul style="list-style-type: none">• AR 25-400-2, AR 95-1, AR 190-11, AR 190-13, AR 190- 51, AR 385-10, AR 600-106, AR 702-6, and AR 710-2.• AR 25-30, DA PAM 385-40, DA PAM 385-64, DA PAM 385-90, DA PAM 710-2-1, DA PAM 710-2-2, DA PAM 750-8, and DA PAM 738-751.• ATP 3-04.7.• TC 3-04.10.• DA PAM 742-1.• TB 9-1300-385.• TM 1-1500-204-23-1, TM 43-0001-37, TM 55-1680-317-23&P, and TM 55-1680-322-12. <p>b. Additional guidance. Other higher headquarters' guidance includes the following:</p> <ul style="list-style-type: none">• ALSS advisory messages.• ARMS checklist.• Additional references are in the bibliography. <p>4. PURPOSE. The purpose of this SOP is to establish responsibilities, policies, and general procedures applicable to the ALSS program and ensure maximum reliability and safety from all ALSE used by crew members assigned to (unit name). This SOP describes the ALSS maintenance management and training programs for all crew members engaging in aerial flights according to AR 95-1, TC 3-04.10, and all other applicable TMs and operator's manuals. It also provides additional local (unit name) operational procedures according to AR 95-1, TC 3-04.10, and all other applicable TMs and operator's manuals regarding storage, inspection, maintenance, cleaning, repair, and replacement of ALSE.</p> <p>5. SCOPE. All personnel participating in aerial flight as crew members, non-crew members, or passengers using aircraft assigned to the (unit name) will adhere to the requirements established in this SOP. Applicable portions of Army, Air Force, and Navy TMs, TOs, and regulations will be used to devise policies, procedures, and directives for crew members and aviation life support personnel.</p> <p>6. MISSION. The unit commander's mission for ALSS maintenance management and training programs is to provide safe, operationally ready ALSE and training to crew members and passengers and to inspect, maintain, and repair ALSE assigned to the (unit name).</p>

Table A-1. Sample ALSS SOP cont'd

<p>7. OBJECTIVES. ALSS maintenance management and training program objectives are to—</p> <ul style="list-style-type: none"> • Provide support for all crew members assigned to (unit name). • Ensure all crew members are properly equipped to perform their missions. • Provide training in the care and use of all assigned ALSE. <p>8. DEFINITIONS</p> <p>a. ALSS: ALSS consists of components, techniques, and training required to ensure crews have the best possible flight environment. ALSS provides maximum functional capabilities of flight personnel throughout all environments experienced during normal missions. ALSS also affords the means to enhance safe and reliable escape, survival, and recovery in combat and emergency situations. Additionally, ALSS operators and training equipment provide units the ability to train and sustain crew member proficiency in the use of ALSE and supporting ALSS equipment.</p> <p>b. ALSE: ALSE comforts, sustains, and protects crew members throughout the flight environment. ALSE also provides crew members with additional protection from impact and post-crash fire. It enhances the means to escape, evade, and survive for recovery in combat or any hostile environment.</p> <p>9. RESPONSIBILITIES</p> <p>a. Commander. The commander establishes the importance and tailors the functions of the ALSS section to support the unit's mission. The commander then provides the logistical support and manpower to enable the ALSS shop to operate according to both its mission and applicable regulations. The commander—</p> <ul style="list-style-type: none"> • Implements ALSS policies and procedures. • Ensures proper training, budgeting, and availability of ALSE. • Provides trained personnel for ALSE maintenance and inspection. • Monitors the ALSS program by— <ul style="list-style-type: none"> ▪ Conducting quarterly visits at the ALSS shop. ▪ Reviewing results from semiannual safety surveys. ▪ Reviewing results from formal FORSCOM ARMS and Directorate of Evaluation and Standardization inspections. ▪ Discussing ALSS issues during quarterly safety council/ALSS steering council meetings. • Integrates ALSS into the unit's operations. • Assigns qualified ALSS personnel and assets according to AR 95-1 to accomplish the ALSS and SERE training programs. • Ensures the program is enforced, including separate unit participation. <p>b. Flight surgeon. The unit flight surgeon is responsible for training both the physiological aspects of flight and medical considerations in survival situations. The flight surgeon will monitor the fitting and use of ALSE by crew members. Flight surgeon also will—</p> <ul style="list-style-type: none"> • Conduct physiological training for aircrew personnel. • Monitor medical aspects of survival training for aircrew personnel. <p>c. Theater, corps, and divisional, brigade, and battalion level ASO. The ASO will monitor all aviation activities for the commander to ensure proper use of protective clothing and ALSE. The ASO periodically will conduct ARMS checks on the ALSS shop.</p> <p>d. Brigade ALSO. If applicable, the Brigade ALSO will—</p> <ul style="list-style-type: none"> • Review this SOP annually (at a minimum) and implement changes to comply with applicable regulations and procedures. • Periodically inspect battalion ALSS shops using the ARMS guide. <p>e. Battalion ALSO. The Battalion ALSO—</p> <ul style="list-style-type: none"> • Is appointed on orders to assist, advise, and represent the battalion commander in all matters pertaining to the ALSS. • Reviews, analyzes, and develops procedures to ensure the planning, budgeting, and maintenance of ALSS. • Conducts a quarterly review of the ALSS shop using the aviation resources management survey commander's guide and documents results in the ALSS quarterly file.

Table A-1. Sample ALSS SOP cont'd

<ul style="list-style-type: none"> • Ensures training of aircrew personnel in survival techniques and the proper use and maintenance of survival equipment. • Supervises the ALSS section and ensures qualified personnel are available for conducting life support and survival training and ALSE maintenance. • Keeps a current file of regulations, procedures, and TMs pertaining to inspection, maintenance, and use of ALSE. • Ensures units encourage life support suggestions and operational hazard reports. • Ensures materiel deficiency reports are submitted for ALSE that fails to operate as designed. • Participates as a member of the unit aviation safety council. • Assists higher headquarters in standardizing the ALSS program. <p>f. Battalion ALSNCO. The ALSNCO—</p> <ul style="list-style-type: none"> • Is appointed on orders to assist, advise, and represent the Battalion ALSO or company ALSO in all matters pertaining to ALSE. • Establishes a library of regulations, procedures, and TMs pertaining to inspection, maintenance, accountability, and stockpile reliability (surveillance) and use of assigned ALSE. • Reviews and updates the ALSS library quarterly. • Maintains files and a status board recording ALSE inspection due dates. • Ensures flight operations and line company ALSOs receive monthly updates of crewmember ALSE inspection status and inspection due dates. • Ensures all ALSE is maintained in a high state of mission readiness through inspecting, cleaning, fitting, testing, and repair. • Participates in local ALSS steering council meetings. • Inspects all controlled drugs, if used, according to AR 40-61. • Participates as an enlisted ALSS representative at aviation safety meetings. • Establishes shop stock and maintains current inventory records. <p>g. Company/Facility ALSO. The company/facility ALSO—</p> <p>(1) Will be school trained and appointed on orders to assist and represent the commander in all matters pertaining to the ALSS shop.</p> <p>(2) The company/facility ALSO is responsible for—</p> <ul style="list-style-type: none"> • Reviewing, analyzing, and developing procedures for planning, budgeting, and maintaining an ALSS maintenance management and training program. • Ensuring crew members are trained in survival techniques and the proper operation, use, and maintenance of survival equipment. • Supervising the life support section and ensuring qualified personnel are available for organizational-level ALSS maintenance and survival training. • Keeping a current file of regulations and procedures and maintaining a library of TMs pertaining to the maintenance, accountability and stockpile reliability (surveillance), care, use, and training of assigned life support and survival equipment. • Ensuring unit personnel have adequate information and training before using new equipment or system changes. • Ensuring unit personnel encourage life support suggestions and operational hazard reports. • Ensuring materiel deficiency reports are submitted on life support equipment failing to operate as designed. • Participating as a member of the unit's aviation safety council representing ALSS.

Table A-1. Sample ALSS SOP cont'd

<ul style="list-style-type: none"> • Assisting higher headquarters in standardizing ALSS maintenance management and training programs. <p>h. ALSETs. ALSETs will—</p> <ul style="list-style-type: none"> • Be school trained and appointed on unit orders to assist, advise, and represent the ALSO in all matters pertaining to ALSS. • Establish a library of TMs pertaining to the care, use, maintenance, accountability and stockpile reliability (surveillance), and training of assigned aviation life support and survival equipment. • Maintain ALSE in a high state of serviceability through inspecting, cleaning, testing, fitting, adjusting, replacing, and repairing. • Maintain files on inspection, maintenance, lot numbers, expiration dates, work orders, and supply pertaining to ALSS operations. • Participate as a member of unit-level or higher enlisted aviation safety councils. • Complete and submit parts and equipment requisitions to appropriate requisitioning offices or agencies (both within and outside the unit). • Assist the unit ALSO or commander's designated representative with the ALSS training program. <p>i. PCs. PCs will—</p> <ul style="list-style-type: none"> • Ensure ALSE appropriate for the mission and operational environment is available on the aircraft. • Ensure crew members and passengers are briefed on ALSE location and use. • Provide ALSS personnel as much notice as possible to prepare appropriate ALSE for all flight modes and geographical environments expected and ensure equipment is serviceable for the duration of the flight/mission. <p>j. Crew members. Crew members will—</p> <ul style="list-style-type: none"> • Ensure ALSE appropriate for the mission and operational environment is available on the aircraft and crew members are briefed on its location and use. • Ensure crew member ALSE preflight checks are conducted according to appropriate operator's manuals before every flight. • Ensure all ALSE accessible for use by crew members, including survival vests, first aid kits, overwater survival kits, and aircraft modular survival system (AMSS) kits, is serviceable for the flight and not overdue for inspection. • Ensure all crew members participating in the flight do not fly with any ALSE overdue for inspection or found to be unserviceable during the preflight inspection. • Maintain possession of survival equipment unless it has been turned in for repair or inspection. • Conduct a preflight inspection of personal ALSE to ensure it is current and serviceable before flight. • Adhere to ALSE inspection due dates and ensure equipment is turned in to the ALSS shop before its expiration. • Use individual storage lockers provided by the command to store and secure individual ALSE. • Ensure individual ALSE preflight checks are conducted according to appropriate operator's manuals before every flight. • Ensure any ALSE overdue for inspection or found to be unserviceable during the preflight inspection is not used during flight.
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Table A-1. Sample ALSS SOP cont'd

<ul style="list-style-type: none"> • Immediately report lost, damaged, or destroyed ALSE to their company ALSO, company ALSNCO, or ALSS shop. <p>10. AIRCRAFT EQUIPMENT REQUIREMENTS. PCs will ensure all crewmembers and passengers are briefed before each flight on the location and use of life support equipment onboard the aircraft. The following ALSE is required at a minimum for all flights:</p> <ul style="list-style-type: none"> • Survival vest worn by each crew member. Each helicopter member of the crew will be equipped with and wear a survival radio. For airplanes, a minimum of two survival radios will be carried at all times on board the aircraft. Survival kits for all crewmembers for the mission, topography, and climate in the area of operations. Panel-mounted first aid kits: One per crew compartment and one per every five passenger seats installed or fraction thereof according to TM 1-1500-204-23-1. <p>11. PREFLIGHT PROCEDURES</p> <p>a. Radio Set AN/PRQ-7, AN/PRQ-7A.</p> <ul style="list-style-type: none"> • UHF/VHF ANTENNA, Inspect for excessive bending, cracking, missing retainer clip rivet, sleeve or damage. • Anchor Nut and Stud. Check anchor nut for stripping. Check antenna stud for stripping. Check for loose antenna. • RADIO CASE: Inspect for damage that could interfere with proper operation or handling of the radio. This includes splitting, cracking, holes, gouges or dents. • Inspect rubber covers of global positioning system antenna, Push-to-Talk, volume control, and radio set keypad for cracks, rips or other damage that would allow water intrusion. • Inspect flat seal at base of rechargeable battery connector. Inspect lens display cover for any damage that would interfere with reading the display: scratches, moisture under the cover, cracks or chips that would allow moisture into the display. • Inspect earphone pouch for holes, damage, or fraying material. • Inspect that canal tip is properly placed on earphone. • Inspect that battery label is completely intact across the top of the battery and down the sides. Some minor curling of the edges is acceptable. • Inspect the battery case for visible cracks, dents or irregular conditions that would prevent installation on a radio. • For rechargeable battery models BT-70581, BT-70581A, or BT-70581B only, verify the battery connector (refer to Figure 4-10) has all 3 connector rings intact, center contact is present and no connector segments are missing. • Check that the rechargeable battery is fully charged, showing a 5 State-of-Charge Liquid Crystal Display segments are illuminated. • Check the non-rechargeable battery capacity. • Inspect for presence and security of speaker bumper and grill. • Perform radio self-test. <p>For rechargeable battery model BT-70581CE only, verify the battery connector has both connector rings intact and no connector segments are missing. This battery model does not have center contacts.</p> <p>b. Survival vest.</p> <p>(1) Survival vest components will be inspected for proper function and serviceability. These components include—</p>
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Table A-1. Sample ALSS SOP cont'd

<ul style="list-style-type: none"> • Vest fabric: Inspect all fabric, including pockets, for tears, seam separation, loose stitching, and snaps. • Slide fasteners: Inspect for proper operation. • Survival and medical panels: inspect to ensure all applicable items are present, are attached to the panels, and are serviceable. <p>(2) All emergency flares and signals will be maintained according to applicable TMs, TBs, and SBs regarding stockpile reliability (surveillance) requirements.</p> <p>c. HGU-56 helmet</p> <ul style="list-style-type: none"> • Outer shell: Check for cracks or gouges and gently flex the helmet at the ear cups to detect cracks. • Screws, fasteners, and buckles: Adjust to fit tightly and operate easily. • Visor: Check for cracks, scratches, or blemishes and clean with a soft cloth. • Visor housing: Visor should slide and adjust easily; housing should sit tight against the helmet without cracks or gouges. • Microphone assembly: Check plugs for separation and wires for cuts or frays; ensure microphone boom adjusts and stays in place and adjustment knob is tight. • Ear cups: Check for cracks in pads and separation from cups; check free rotation of cups in retention assembly; ensure there is a complete seal around the ears (tighten chin strap if seal is broken when rotating the head 90 degrees left or right). • Adjustable retention assembly, suspension assembly, and chin strap: Check for fraying, dry rot, excessive oil and dirt, and loose attachment points. • Thermo-plastic liner assembly: Check foam liner for gouges, chips, or cracks and looseness within the helmet shell; ensure all four layers are present; check black liner covering for excessive oil and dirt. <p>d. Integrated Helmet and Display Sight System (IHADSS)</p> <ul style="list-style-type: none"> • Outer shell: Check for cracks or gouges; gently flex the helmet at the ear cups to detect cracks. • Screws, fasteners, and buckles: Adjust to fit tightly and operate easily. • Visor: Check for cracks, scratches, or blemishes and clean with a soft cloth. • Visor housing: Visor should slide and adjust easily; housing should be tight against the helmet without any cracks or gouges. • Microphone assembly: Check plugs for separation and wires for cuts or frays; ensure microphone boom adjusts and stays in place and adjustment knob is tight. • Ear cups: Check for cracks in pads and separation from cups; check free rotation of cups in retention assembly; ensure there is a complete seal around the ears (tighten chin strap if seal is broken when rotating the head 90 degrees left or right). • Adjustable retention assembly, suspension assembly, and chin strap: Check for fraying, dry rot, excessive oil and dirt, and loose attachment points. <p>e. LPU-34/P low profile flotation collar</p> <ul style="list-style-type: none"> • PCs must ensure all crew members know how to wear and deploy the floatation collar before use. <p>Note. Do not pull lanyards; this will cause the floatation collar to inflate.</p> <ul style="list-style-type: none"> • Inspection record (located in the survival vest's inner left bottom pocket)— <ul style="list-style-type: none"> ▪ Ensure the floatation collar has not exceeded its inspection due date. ▪ Straps and cell coverings: Inspect for frays, tears, holes, and security of stitching. ▪ Deployment handles: Check for frays and cuts and ensure pull knobs are exposed no more than a half inch to prevent snagging inside the aircraft and inadvertent deployment of the LPU. <p>f. Survival kits</p> <p>(1) Survival kits should not be opened for preflight inspection. Survival kit components include—</p> <ul style="list-style-type: none"> • Seal: Ensure seal is intact; if not, return kit to the ALSS shop for inspection and resealing.
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Table A-1. Sample ALSS SOP cont'd

- Condition tag: Ensure tag is a yellow DD Form 1574 (Serviceable Tag-Materiel) and that kit is not past its inspection due date.
 - Case: Inspect for wear, holes, cracks, or separating straps.
- (2) The aircraft first aid kit checklist is the same as the survival kit checklist.

12. TRAINING**a. General**

(1) ALSS and SERE training will be conducted according to AR 95-1 and AR 525-28. A school-qualified ALSET will administer ALSS training. The ALSO/ALSNCO will document attendance at these classes with locally produced sign-in rosters. At a minimum, the ALSO/ALSNCO will ensure training on an annual basis in survival vest use and proper care and use of emergency flares and signals. Training includes the following subject areas:

- Survival radios.
- Flight helmets.
- Flotation equipment.
- Survival kits.
- Protective clothing.
- Survival training.

(2) Additional training should include—

- Operator care and use of flight helmet, survival vest, survival radio, protective flight clothing, aircraft survival kits, first aid kits, emergency locator beacons, and aircrew CBRN protective equipment.
- Unit central issuing facility procedures (issue, direct exchange, and turn in).
- Aircraft emergency egress devices and methods.

b. Individual

(1) All new crew members will receive an equipment briefing and orientation during initial ALSE inspection and fitting.

(2) Each unit ALSO will develop an ALSS and SERE training program.

(3) The unit will have full responsibility for implementing its ALSS and SERE program and adding training to its annual training calendar.

(4) Unit ALSS and SERE trainers will be responsible for maintaining all training documentation.

(5) SERE training will be conducted according to AR 95-1, AR 525-28, and TC 3-04.10.

(6) SERE B- and C-level training will be administered only by graduates of a formal SERE C school using training planning guides approved by the AR 525-28 proponent. SERE training will include the following subject areas:

- SERE A: Code of conduct.
- SERE B: Basic land survival, food and water procurement, shelter building, fire craft, emergency signaling, basic land navigation, and combat search and rescue procedures.
- SERE C: Combat evasion, extraction and recovery, theater SPINS, special operations personnel and partisan linkups, exfiltration methods, prisoner of war resistance, escape, isolated personnel procedures, and joint personal recovery agency procedures and publications.

(7) Prisoner-of-war resistance labs will not be conducted unless under the direction of the John F. Kennedy Special Warfare Center according to AR 525-28. Only qualified SERE C school graduates will administer prisoner-of-war resistance training.

(8) All unit crewmembers will have a DD Form 1833 Test (V2) (Isolated Personnel Report) according to AR 525-28. The battalion S-2 and S-3 are responsible for preparing and maintaining each crew member's isolated personnel report.

13. SHOP OPERATIONS**a. Maintenance, inspections, repairs, and procedures**

(1) ALSETs maintain and operate the ALSS shop. Non-ALSS school-trained technicians, designated on orders signed by the commander, are authorized to inspect and service first aid kits as specified by TM

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Table A-1. Sample ALSS SOP cont'd

1500-204-23-1, Chapter 11. Equipment inspections will be accomplished within the interval specified and according to the appropriate Army TMs, TBs, SBs; Air Force publications; TOs; and NAVAIRs.

(2) ALSE serviceability will be identified with the appropriate materiel condition code tag—DD Form 1574, DD Form 1577 (Unserviceable [Condemned] Tag-Materiel), or DD Form 1577-2 (Unserviceable [Repairable] Tag-Materiel)—according to DA PAM 738-751. All ALSE items that fail required inspections or tests will be tagged with the appropriate DD form. Those items that cannot be repaired locally will be referred to higher-level maintenance or turned in to supply for replacement.

(3) HGU-56/P maintenance procedures are as follows:

- HGU-56/P helmets will be inspected according to TM 1-8415-215-12&P every 120 days.
- After inspection is complete, an appropriate entry will be made on the helmet's DA Form 2408-22 (Helmet and Attached Equipment Inspection/Maintenance Record) indicating inspection type (initial or 120 day), inspection completion date, and next inspection due date; the ALSE status board will then be updated.
- All HGU-56/P helmets will be marked with the aviator's name and next inspection due date on the right rear of the helmet.
- Helmet repairs will remain at the unit level; inspection and repair data will be recorded on DA Form 2408-22.

(4) IHADSS maintenance procedures are as follows:

- IHADSS will be inspected according to TM 9-1270-233-23&P every 120 days.
- After inspection is complete, an appropriate entry will be made on the helmet's DA Form 2408-22 indicating inspection type (initial or 120 day), inspection completion date, and next inspection due date; the ALSE status board will then be updated.
- All IHADSS helmets will be marked with the aviator's name and next inspection due date on the right rear of the helmet.

(5) AMSS maintenance procedures are as follows:

- AMSS will be inspected every 360 days, plus or minus 6 days.
- After AMSS inspection is complete, an appropriate entry will be made on the aircraft's DA Form 2408-18 (Equipment Inspection List) indicating inspection completion date and next inspection due date.
- Inspection records will also be maintained in company AMSS logbooks, located in battalion ALSS shops.

(6) Aircraft first aid kit maintenance procedures are as follows:

- Aircraft first aid kits will be inspected according to TM 1-1500-204-23-1 every 12 months or before expiration of the first item due or 1 year after the previous inspection, whichever comes first.
- Aircraft will be equipped with at least one first aid kit per crew compartment and every five seats filled; condition and lot numbers of medical items within the kit will be recorded on a locally produced lot tracking form.
- Only school-trained ALSS personnel on specific orders to inspect aircraft first aid kits will complete these inspections.
- After the first aid kit inspection is complete, an appropriate entry will be made on the aircraft's DA Form 2408-18 indicating inspection completion date and next inspection due date.

(7) All SDU-5 (marker distress light) batteries will be tested using the AN-23 battery test set before use with unit ALSS.

(8) Survival vest maintenance procedures are as follows:

- Survival vests will be inspected before issue and every 120 days thereafter according to applicable technical manual; inspection/repair data will be recorded on DA Form 2408-24 (Survival Kit/Vest Inspection and Maintenance Record).
- Critical and easily lost items must be attached to the vest.
- After survival vest inspection is complete, an appropriate entry will be made on the vest's DA Form 2408-24 indicating inspection type (initial or 120 day), inspection completion date, and next inspection due date; the vest will then be tagged serviceable and the ALSE status board updated.

Table A-1. Sample ALSS SOP cont'd

<ul style="list-style-type: none"> • When not in use, batteries from SDU-5 markers and AN/PRQ-7 survival radios will be removed and properly stored. • Survival vests will be inspected annually by supporting QASAS or trained ammunition inspectors (specialty 55B) according to DA PAM 742-1 and TB 9-1300-385. <p>(9) AN/PRQ-7 radio maintenance procedures are to be accomplished in accordance with TM 11-5820-1159-13.</p> <p>(10) LPU-10 life vest maintenance procedures are as follows:</p> <ul style="list-style-type: none"> • LPU-10 life vests will be inspected according to applicable TMs/PM-ACIS messages before issue and every 180 days thereafter. • (Unit name) training LPU-10s will be marked "FOR TRAINING ONLY" in 1-inch letters. <p>(11) Life raft maintenance procedures are as follows:</p> <ul style="list-style-type: none"> • One-man life rafts will be inspected according to applicable TMs/PM-ACIS messages before issue and every 180 days thereafter. • (Unit name) training one-man life rafts will be marked "FOR TRAINING ONLY" in 1-inch letters. <p>(12) LPU-34/P low-profile flotation collar maintenance procedures are as follows:</p> <ul style="list-style-type: none"> • LPU-34/P low-profile flotation collars will be inspected every 360 days according to NAVAIR 13-1-6.1-2. • Inspection and repair information will be recorded on DA Form 2408-29 (Anti-Exposure Coveralls Inspection Record); DA Form 2408-27 (Life Preserver Data) will be stored in the inner lower left survival vest pocket with the vest operator's manual and condition tag. • (Unit name) training flotation equipment will be marked "FOR TRAINING ONLY" in 1-inch letters. <p>b. ALSS file maintenance</p> <ul style="list-style-type: none"> • All forms, records, and files used by (unit name) ALSS shops for conduct of the ALSS program will be maintained according to AR 25-400-2 and DA PAM 738-751 or as listed in appropriate TMs or other source material. • (Unit name) ALSS shops will maintain the following publications, forms, and files. ALSS personnel will use the ALSS quarterly file to document the following: <ul style="list-style-type: none"> ▪ Commander's quarterly review. ▪ ASO quarterly review. ▪ Battalion ALSO quarterly review. <p>Quarterly reading file, which contains important information regarding changes to policies or procedures and must be reviewed quarterly by all ALSS personnel. The ALSS quarterly reading file will contain the most current (unit name) ALSS SOP. All ALSS personnel will read and initial the quarterly ALSS reading file before performing any maintenance on (unit name) ALSE.</p> <ul style="list-style-type: none"> ▪ An ALSS library containing appropriate manuals, regulations, publications, and messages will be available for use during ALSE inspections, maintenance, and repair. This library will be maintained by the battalion ALSNCO and reviewed quarterly for currency and accuracy. Reviewing Soldiers will document quarterly reviews in the ALSS quarterly file. The ALSS library will contain documents and regulations authorizing ALSE. ▪ ALSS publication accounts will be established and maintained by (unit name). ▪ The ALSNCO will review and update the ALSS library quarterly. ▪ Quarterly reading file, which contains important information regarding changes to policies or procedures and must be reviewed quarterly by all ALSS personnel. The ALSS quarterly reading file will contain the most current (unit name) ALSS SOP. All ALSS personnel will read and initial the quarterly ALSS reading file before performing any maintenance on (unit name) ALSE. ▪ An ALSS library containing appropriate manuals, regulations, publications, and messages will be available for use during ALSE inspections, maintenance, and repair. This library will be maintained by the battalion ALSNCO and reviewed quarterly for currency and accuracy.

Table A-1. Sample ALSS SOP cont'd

- Reviewing Soldiers will document quarterly reviews in the ALSS quarterly file. The ALSS library will contain documents and regulations authorizing ALSE.
- ALSS publication accounts will be established and maintained by (unit name).
- The ALSNCO will review and update the ALSS library quarterly.

c. ALSS scheduled maintenance. If scheduled maintenance requirements are not completed within the time limits specified by TC 3-04.10, AR 95-1, DA PAM 738-751, and appropriate TMs, ALSE will not be used for flights in (unit name) aircraft. The ALSS tracking program is in place to prevent use of out-of-date ALSE by (unit name) aircrews.

d. ALSS tracking program

(1) Each (unit name) ALSS shop will maintain an ALSE status board in the ALSS shop. This board will be updated continuously and contain the following information:

- Aviators' names and ranks.
- Assigned company (or supporting company).
- Next IHADSS inspection due date.
- Next SRU-21P (aviator's survival vest) inspection due date.
- Next PRC-112 inspection due date (if applicable).

(2) To prevent crew members from inadvertently flying with ALSE past its inspection date, the following control measures are in effect:

- A computer printout of inspection due dates for each crew member will be supplied monthly to battalion flight operations.
- When a flight plan is filed, flight operations personnel will check to ensure the crew members listed on the flight plan are within their ALSE inspection dates. An additional ALSE "GO or NO GO" block has been added to all (unit name) flight plans and must be initialed by flight operations personnel before accepting flight plans.
 - (Unit name) personnel will perform an initial inspection of all equipment before use.
 - All unserviceable equipment will be turned in to supply for replacement.
 - Fitted ALSS gear will be used only by the person for whom it was intended.
 - Only school-trained ALSS technicians appointed on orders by commanders are authorized to perform maintenance on or fit ALSS equipment.

e. Accountability

(1) Authorized personnel: Only ALSS personnel are authorized to issue and receive ALSE. The door to the ALSE shop will remain locked when ALSETs are not present. Regular operating hours for the ALSS shop will be posted on the door.

(2) Proper distribution measures: Survival equipment available in limited quantities (such as PRC-112s and LPUs) will be issued according to highest probability of use (line pilots, PCs, and then instructor pilots and crew chiefs). Other crew members will be issued equipment as it becomes available.

(3) Inventories: The following equipment will be inventoried at periodic and random intervals, not to exceed semiannually:

- Radios.
- Tool boxes

(4) Hand receipts: Crew members will sign a DA Form 2062 for all ALSE. This hand receipt will delineate the items included in the survival vest for which the individual crew member is responsible. DA Form 2062 will be resigned at the beginning of each inspection period, not to exceed 6 months.

(5) Missing or broken equipment: As specified in DA PAM 710-2-1, DA Form 2062 is good for 6 months for all equipment issued from the shop. Any crewmember missing an ALSE item will notify the ALSO/ALSNCO immediately so item resupply or a report of survey (if necessary) may be initiated with minimum delay.

(6) Files and records: The ALSS shop will maintain all files and records pertaining to ALSE. The ALSS library will be maintained in the ALSS shop according to AR 25-400-2.

Table A-1. Sample ALSS SOP cont'd

(7) Work orders: All ALSE that requires field maintenance or other supporting maintenance will be processed by work order using DA Form 2407 (Maintenance Request) at the appropriate maintenance site. The supporting element will be responsible for equipment during the servicing period and until it is received by an authorized battalion ALSS representative. The ALSET will retain a copy of the work order.

f. Supply

(1) General: Hand receipts for all nonexpendable and durable ALSE will be maintained in the unit supply office. Hand receipts will be updated for all ALSE that is force issued or turned in to the unit.

(2) Orders and resupply: Class II items will be ordered through company supply; Class VIII will be ordered through the warehouse; and Class IX items will be ordered through tech supply. The ALSS shop will receive a list of document numbers from the supply source that shows equipment is on order. If needed items cannot be acquired through normal supply channels, a memorandum signed by the supply officer/NCO stating such must be filed in the ALSS shop. ALSETs must remain consistently aware of potential shortages through continuous inventory of bench stock items.

(3) Storage: ALSE will be stored in a manner prescribed by the appropriate TM. The ALSS shop will maintain a bench stock of necessary repair parts. All serviceable equipment stored in the shop will be identified with the appropriate materiel condition tag. Excessive, unserviceable, and obsolete ALSE not required by the battalion mission will be turned in.

g. Pyrotechnics and batteries

(1) Pyrotechnics will be stored and handled according to AR 190-11, DA PAM 385-64, and DA PAM 742-1, as well as current post policies. In addition—

- Pyrotechnics will be maintained in an appropriate container bearing required placards and a record of lot numbers. This record will include the lot numbers and quantity of stored pyrotechnics.
- Pyrotechnics will be inventoried semiannually.
- Pyrotechnics will be removed from survival kits and vests before boarding any civilian aircraft.
- Storage containers must be certified for use according to AR 190-11 and AR 190-51.
- Storage rooms and vaults must be issued a DA Form 4604 (Security Construction Statement) and have an explosive storage limits and license according to DA PAM 385-64.
- All ALSE items will be checked according to DA PAM 742-1 and TB 9-1300-385 standards and criteria.
- All ALSE items will be stored according to AR 190-11, AR 190-51, AR 710-2, and AR 385-10 requirements for physical security, accountability, inventory, and explosives safety.
- (2) Batteries will be stored and disposed of in a safe manner according to the HAZMAT officer/NCO and SB 11-6.

h. ALSS CPC

(1) ALSE CPC inspections will be accomplished in association with inspections and maintenance according to the item's technical publications.

(2) When the ALSET documents an inspection or maintenance is complete, CPC will be considered accomplished during the action. A separate CPC inspection is not required or documented per PM-ACIS.

(3) The ALSET will use only approved materials, solvents, and POL specified in applicable technical publications.

(4) ALSS equipment storage and climate control will be used according to TC 3-04.10.

i. Personal equipment care

(1) Crew members will periodically clean their ALSE. All ALSE will be cleaned according to this SOP before turn-in for inspection.

(2) Flight vests may be cleaned by hand washing with a mild laundry detergent and hang dried. A conventional washer and dryer should not be used for cleaning survival vests due to the possibility of mesh damage.

(3) Flight helmets should be periodically wiped with a soft, nonabrasive cloth. In some cases, a bristle brush may be used for hard-to-reach areas. The thermo-plastic liner's black cover may be removed and washed by hand with a mild detergent and hang dried. Thermo-plastic liner covers may not be dried in conventional dryers.

(4) A soft, nonabrasive cloth or soft bristle brush may be used to clean survival radios. Operators may only clean the radio's exterior surface. At no time may the operator disassemble the radio for cleaning or troubleshooting.

Table A-1. Sample ALSS SOP cont'd

j. Termination of crew duties. Once crew members have been relieved of their duties, they are required to immediately return their ALSE to the ALSS shop for reissue. There is a shortage of ALSE within the unit, and personnel are encouraged to turn in equipment not being used. Platoon sergeants are encouraged to assist the ALSS program in this matter to ensure their Soldiers are equipped properly.

k. In-processing and out-processing

(1) In-processing: All Soldiers on flight status arriving to (unit name) will in-process through the (company/battalion) ALSS shop, located in the unit hangar. Aviators will turn in their flight helmet to the ALSS shop as soon as possible after arrival to expedite required inspection and maintenance. Individuals may in-process or out-process at any time during business hours.

(2) Out-processing: Crew members will turn in their ALSE at least 5 working days before their clearing date so equipment can be inspected and tagged for turn in. If the Soldier is to fly up to the day of clearing, they must coordinate in advance with the ALSS shop.

(3) Turn-in for scheduled inspections: Crew members will turn in their flight gear at least 5 working days before its inspection due date. The ALSS shop will complete inspections within 2 working days.

l. Storage of crew member ALSE

(1) All crew members will use crew lockers to store their ALSE. All items will be readily available to the ALSET for inspection/repair.

(2) At a minimum, crew members are required to keep the following items in their assigned locker at all times, except when flying:

- Flight helmet and helmet bag.
- Survival vest.
- Life preserver.

m. ALSERP

(1) If ALSE is used during an actual accident or incident, the ALSS shop will submit the used equipment for inspection and analysis according to the ALSERP, DA PAM 385-90, and DA PAM 385-40.

(2) All ALSS personnel will be familiar with the ALSERP according to DA PAM 385-90 and DA PAM 385-40.

(3) Selected ALSS personnel will be appointed on written duty orders to participate on the state accident investigation team. If ALSS personnel are used as team members during aviation accident investigations, they will work under the supervision of the onsite commander.

(4) ALSS personnel will assist USAARL representatives with collecting ALSS/SERE equipment and documentation involved in aviation accidents. Equipment items will be collected, marked as accident exhibits, and shipped according to USAARL instructions. ALSS/SERE equipment involved in aviation accidents will be removed from service and not reissued until final written disposition of serviceability has been determined by USAARL.

(5) The investigating ALSET will inventory any ALSS/SERE equipment items collected from the accident site. Item accountability will be provided to the battalion S-4. USAARL representatives will provide the battalion S-4 with property receipts on items taken for laboratory investigation.

n. Flights on commercial air carriers

(1) Crew members flying on commercial airliners will follow FAA and airliner regulations and procedures. Pyrotechnics will not be carried onboard commercial airline flights.

(2) The PC will check with the air carrier regarding its procedures.

o. ALSE mobility and deployment procedures

(1) ALSS shop organization for deployment and mobility operations will be conducted according to TC 3-04.10. ALSS equipment will be deployable by means of properly maintained equipment with applicable modifications, adjustments, additions, and upgrades. Any ALSE item not up to its full operational potential and standards must be corrected before deployment or at the deployment site.

(2) The (unit name) will maintain all ALSS shop bench stock and shop stock available:

- Upon mobilization, all ALSS parts will be transferred to each unit's field-level maintenance ALSS section for deployment stock:
 - Battalion: 30 percent.
 - Company: 70 percent.
- Each unit will have a bench stock ASL written for its specific needs with the aid of a packing load list on file in the ALSS shop.

(3) The ALSS shop will maintain mobility according to the following procedures upon notification of deployment:

- The ALSET will report the status of all ALSS equipment and parts to the ALSS officer.

Table A-1. Sample ALSS SOP cont'd

<p>Each unit will be provided with a percentage amount of ALSS stock according to the unit's prearranged bench stock ASL.</p> <ul style="list-style-type: none"> • Each unit will be provided with ALSE inspection records for all assigned crew members, aircraft, and ALSS equipment. • ALSS personnel are responsible for packing and shipping ALSS stock and support items. • ALSS personnel will inventory tools, ALSS stock, and equipment upon arrival at the deployment site. • The unit ALSS section will maintain the ALSS program according to TC 3-04.10, the battalion/company tactical SOP, and the following procedures during deployment: <ul style="list-style-type: none"> ▪ Consolidate ALSS resources whenever possible. ▪ Locate all ALSS-qualified individuals at the site. ▪ Locate and inventory ALSS stock. ▪ Set up an inspection and maintenance schedule according to the unit's mission schedule. ▪ Set up ALSS operations according to TC 3-04.10. ▪ Establish a contact with unit supply and the unit publications NCO. ▪ Coordinate with the battalion S-4 to secure adequate shelter, power, light, and water. ▪ Requisition ALSS stock items and flight equipment to upgrade the unit's needs and tactical requirements. ▪ Establish the ALSS training program, specifically the combat-survival portions, throughout the unit. • Additional ALSS support and POCs should be acquired from better-equipped units such as Air Force or Navy aviation life support/parachute shops in or near the deployment area. • Unit ALSS personnel must be prepared to conduct ALSE inspections, maintenance, and training with the immediate resources available. • All ALSS tools and test equipment maintained at the (unit name) will be transferred to the battalion's maintenance element to support mobility shortages. The battalion S-4 will be responsible for obtaining additional equipment needed to support ALSE maintenance during mobility. ALSS equipment classified as HAZMAT will be packaged, certified, and shipped according to TM 38-250. • Procedures for HAZMAT shipment may be obtained by contacting any USAF traffic management office. • ALSS HAZMAT shipments will be packaged and certified by qualified personnel listed in TM 38-250. 	
<p>Legend: ALSE- aviation life support equipment ALSERP- aviation life support equipment retrieval program ALSET- aviation life support equipment technician ALSNCO- aviation life support equipment non-commissioned officer ALSO- aviation life support equipment officer ALSS- aviation life support system AMSS- aircraft modular survival system AR- Army regulation ARMS- aviation resource management survey ASL- authorized stockage list ASO- aviation safety officer ATP- Army techniques publication CPC- corrosion prevention and control DA PAM- Department of the Army Pamphlet DD- Department of Defense FAA- Federal Aviation Administration FM- field manual FORSCOM- Forces Command HAZMAT- hazardous material HGU- head gear unit</p>	LPU- life preserver unit NAVAIR- Naval Air NCO- non-commissioned officer PC- pilot in command PM-ACIS- project manager aircrew integrated systems POC- point of contact POL- petroleum, oil, and lubricants QASAS- quality assurance specialist (ammunition surveillance) S-2- intelligence staff officer S-3- operations staff officer S-4- logistics staff officer SB- supply bulletin SERE- survival, evasion, resistance, and escape SOP- standing operating procedure SPINS-special instructions TB- technical bulletin TC- training circular TM- technical manual TO- technical order TRADOC-Training and Doctrine Command USAF-United States Air Force

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Appendix B

Tool List

B-1. Table B-1 contains the majority of items used for daily ALSE repair functions. This list may not include all tools and items required in a particular ALSE shop.

Table B-1. Tool list

<i>NSN</i>	<i>Remarks</i>	<i>Nomenclature</i>
7920-00-044-9281		Cloth, Cleaning Type 2
6640-00-663-0832		Paer, Lens
8530-00-290-2920		Toothbrush
8415-00-082-6108		Apron, Rubber
5350-00-224-7207		Paper, Abrasive 240 Grit
5350-01-060-8217		Paper, Abrasive 240 Grit
7510-00-174-3205		Pencil, Grease
5345-01-134-8609		Band, Abrasive
5120-01-654-9558		Screwdriver, Cross Tip (#2)
5120-01-398-7951		Screwdriver, Cross Tip (#1)
5120-00-222-8852		Screwdriver, Flat Tip
5120-00-260-4837		Screwdriver, Flat Tip
5110-00-224-1532		Pliers, Diagonal Cutting
5120-01-367-4646		Pliers, Duckbill
5120-01-631-1431		Pliers, Needle Nose
5120-01-429-3611		Socket Set, Socket Wrench (3/8 Drive)
5120-01-474-5182		Handle, Socket Wrench (3/8 Drive Ratchet)
5120-00-792-9000		Tape Measuring
6695-01-590-8393		Tester, Aviation Life Support
6625-01-265-6000		Multimeter
3530-00-892-4632		Sewing Machine
5110-00-161-6912		Shears, Straight Trimmers
5510-00-162-2202		Shears, Pinking
5120-00-357-6065		Pop, Rivet
5120-00-177-9839		Riveter, Blind, Hand
5110-00-161-6912		Shears, Straight
6625-01-013-9900		Test Set, AN/PRM-32A
6625-01-128-8588		Test Set, ANR/TS-24B
6625-00-238-0223		Tester, TS-2530A/UR
4920-01-541-1002		CSEL Leak Test Kit
6625-01-085-9669		Test Set, Strobe Light
5136-01-321-6790		Tool Kit, Chuck and Die Set
5180-01-628-2375	W30949	Tool Kit, Aircraft Maintenance
5120-00-240-8703		Adapter, Socket Wrench
7520-00-248-9285		Brush Stencil
5130-00-889-8992		Drill, Electric 1/4-inch Portable
5133-00-293-0983		Drill Set, Twist
6630-00-405-1075		Meter, Dissolved Solids 0-50.000
5120-00-293-3397		Mallet, Rawhide
5120-01-289-4310		Rivet Gun
5180-01-628-2370	W43279	Tool Kit, Aircraft Maintenance
4920-01-551-7472	W60206	Aviation Shop Equipment
6630-01-103-9007		Meter, Range Multiplier
1680-01-418-4701		Product Barb Insertion Tool

Table B-1. Tool list, cont'd

<i>NSN</i>	<i>Remarks</i>	<i>Nomenclature</i>
5120-01-396-6070		Wrench, Torque
5120-00-542-9219		Adapter.3/8 Inch Square Drive
5120-01-302-4387		Crowfoot, Attachment Set
5120-01-426-7560		Wrench, Torque. 3/8 Inch Square Drive
5120-00-678-5057		Bit Set Screwdriver
7910-00-550-9123		Cleaner, Vacuum
6685-00-043-3739		Manometer, Vertical Tube
6670-01-424-6443		Scale, Dial, and Beam
4920-00-242-4100		Separator, Oil, and Water
5110-00-018-0952		Knife Set, 3 Holder Wiblades
5110-00-029-9089		Hot Knife, Searing
5120-01-532-8446		Tool Kit Die Set
6515-01-361-5228		Face Shield
5120-00-223-8991		Awl, Saddlers
7520 00-248-9285		Brush, Stencil
7920 00-240-6358		Brush, Dusting
5110-00-596-9604		Punch, Leather
5120-00-795-8669		Tweezers Craftsman
6695-01-590-8393		Tester, Aviation Life Support (ALSET)
6625-01-265-6000		Multimeter: AN/PSM-45
6625-00-238-0223		Test Set, Battery, Portable: TS-2530A/UR
3530-00-892-4632		Sewing Machine
4240-00-542-2048		Face Shield, Industrial, Clear, Plastic Visor
5310-01-310-6845		Compressor Unit, Reciprocating
5110-00-028-9089		Knife, Hot Tip, Electric
5110-00-223-6370		Shears, Tailor's, Steel, 12 Inches Long
5120-00-568-4742		Screwdriver, Torque, Exposed Dial and Deflecting Frame
5120-01-374-1931		Wrench, Torque inch pounds
5130-00-990-5238		Sander, Finishing, Electric
5210-00-224-9942		Caliper, Slide Inside
5210-00-540-2973		Caliper, Micrometer, Outside
5120-00-240-8706		Extension, Socket Wrench, 30 Inch, 1/2 Inch Drive
5120-00-277-2696		Wrench, Open End Box, Flare Nut Single End, 12 Point
5120-00-277-4069		Wrench, Tap and Reamer, Sliding T-Handle
5120-00-288-8739		Screwdriver Set, Jeweler's, Swivel
5120-00-293-3397		Mallet, Rawhide, 11 Ounce, 12 Inch Handle
5120-01-289-4310		Riveter, Blind, Hand, Straight Head
5130-00-935-7354		Drill, Electric, Portable, 120V, 3/8-Inch, Keyed Jaw Chuck
5133-00-189-9272		Drill, Twist, Jobbers Length, Wire Size 27 12S
5136-00-729-5689		Tap, Thread Cutting, Straight Flute Style, Right-Hand Thread
5210-00-241-3599		Square, Combination, 12 Inch Long Grooved Blade
7910-00-550-9123		Cleaner, Vacuum, Electric, Canister Type, 115-120V, 60Hz
7920-00-240-6358		Brush, Dusting, Bench, 13 Inches Long
8020-00-297-6657		Brush, Paint, Chiseled Edge, 1-1/4 Inches Wide
5120-00-240-8716		Screwdriver Cross Tip
3439-00-618-6623		Soldering Gun, Pistol Grip Handle, 11 Inches Long
3540-00-956-4511		Sealing Iron, Electric, Portable, Hand Operated, Jaw Type
4240-01-249-2573		Respirator, Air Filtering
4240-00-052-3776		Goggles, Industrial
4940-01-028-7493		Heat Gun, Electric
5110-00-018-0952		Knife Set, Craftsman's
5110-00-161-6912		Shears, Straight Trimmers, 9 Inches Long, Steel
5110-00-221-1085		Shears, Metal Cutting, Hand, 7 Inches Long

Table B-1. Tool list, cont'd

NSN	Remarks	Nomenclature
5110-00-222-2708		Pliers, Diagonal Cutting
5110-00-234-6548		File, Hand, American Pattern
5110-00-355-8504		Saw, Hand, Metal Cutting
5110-00-596-9604		Punch, Cutting, Revolving Head, 9 Inches Long
5120-00-020-2947		Wrench, Strap, Nylon Strap
5120-00-182-9656		Rule, Pocket
5120-00-184-8403		Crowfoot Attachment, Socket Wrench, 3/8 Inch Drive
5120-00-198-5400		Key, Socket Head Screw, L-Handle, Hexagon, 0.035 Inch
5120-00-222-8852		Screwdriver, Flat Tip, 4 Inch Long Steel Blade
5120-00-223-8191		Awl, Saddler's Pad, 8 Inches Long, 4 Inch Blade
5120-00-240-8703		Adapter, Socket Wrench, 1-1/2 Inch Long, 3/8-Inch to 1/2-Inch
5180-00-064-5178	W37483	Tool Kit Electronic Equipment TK-101/G

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Appendix C

Inspection Calendar

C-1. To use the sample inspection calendar illustrated in table C-1, locate the month the last inspection was performed, read across for the month the next inspection is due, then add or subtract. This calculation will determine the next inspection due date. If a 120-day inspection was performed on 4 January, it would be due again on 4 May with no days lost. If performed on 4 May, an inspection would be due again on 1 September (3 days lost/subtracted from 4 September). The inspection cycle for this sample is January, May, and September; however, if the inspection was completed on 1 September, it would be due again on 30 December (1 January with 2 days lost or subtracted). This calculation will automatically change the inspection cycle from January, May, and September to December, April, and August. ALSS personnel may want to perform periodic inspections early or late to spread equipment inspections throughout the three cycles or meet mission requirements; however, ALSE overdue for inspections must be properly tagged and identified.

Table C-1. Sample 90-, 120-, 180-, and 360-day inspection calendar

Non-Leap Year (2019, 2021, 2022, 2023, 2025, 2026 etc.)				
	90	120	180	360
January	Apr (-0)	May (-0)	July (-1)	Jan (-6)
February	May +1	June (-0)	Aug (-1)	Feb (-6)
March	June (-2)	July (-2)	Sep (-4)	Mar (-5)
April	July (-1)	Aug (-2)	Oct (-3)	Apr (-5)
May	Aug (-2)	Sep (-3)	Nov (-4)	May (-5)
June	Sep (-2)	Oct (-2)	Dec (-3)	June (-5)
July	Oct (-2)	Nov (-3)	Jan (-4)	July (-5)
August	Nov (-2)	Dec (-2)	Feb (-4)	Aug (-5)
September	Dec (-1)	Jan (-2)	Mar (-1)	Sep (-5)
October	Jan (-2)	Feb (-3)	Apr (-2)	Oct (-5)
November	Feb (-2)	Mar (-0)	May (-1)	Nov (-5)
December	Mar (-0)	Apr (-1)	June (-2)	Dec (-5)
Leap Year (2020, 2024, 2028, 2032 etc.)				
	90	120	180	360
January	Apr (-1)	May (-1)	July (-2)	Jan (-5)
February	May (-0)	June (-1)	Aug (-2)	Feb (-5)
March	June (-2)	July (-2)	Sep (-4)	Mar (-5)
April	July (-1)	Aug (-2)	Oct (-3)	Apr (-5)
May	Aug (-2)	Sep (-3)	Nov (-4)	May (-5)
June	Sep (-2)	Oct (-2)	Dec (-3)	June (-5)
July	Oct (-2)	Nov (-3)	Jan (-4)	July (-5)
August	Nov (-2)	Dec (-2)	Feb (-4)	Aug (-5)
September	Dec (-1)	Jan (-2)	Mar (-1)	Sep (-5)
October	Jan (-2)	Feb (-3)	Apr (-2)	Oct (-5)
November	Feb (-2)	Mar (-0)	May (-1)	Nov (-5)
December	Mar (-0)	Apr (-1)	June (-2)	Dec (-5)
Legend: Jan- January Feb- February Mar- March Apr-April			Aug-August Sep- September Oct- October Nov- November Dec- December	

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Glossary

SECTION I – ACRONYMS AND ABBREVIATIONS

ALSE	aviation life support equipment
ALSET	aviation life support equipment technician
ALSNCO	aviation life support equipment noncommissioned officer
ALSO	aviation life support equipment officer
ALSS	aviation life support system
AMCOM	Aviation and Missile Command
AMDF	Army master data file
AR	Army regulation
ARMS	aviation resource management survey
ASL	authorized stockage list
ATP	Army techniques publication
AW	Air Warrior
CBRN	chemical, biological, radiological, and nuclear
CIF	central issue facility
CTA	common table of allowances
DA	Department of the Army
DA PAM	Department of the Army pamphlet
DD	Department of Defense
DLA	Defense Logistics Agency
DOD	Department of Defense
DSCP	Defense Supply Center Philadelphia
F	Fahrenheit
FEDLOG	federal logistics
FM	field manual
FORSCOM	Forces Command
GCSS-A	Global Command Support System-Army
HAZMAT	hazardous material
LIDB	logistics integrated database
LOGSA	logistics support activity
MTOE	modified table of organization and equipment
NAVAIR	Naval Air
NSN	national stock number
PBUSE	Property Book Unit Supply Enhanced
PM-AW	Product Manager-Air Warrior
PMCS	preventive maintenance checks and services

QASAS	quality assurance specialist (ammunition surveillance)
S-2	intelligence staff officer
S-3	operations staff officer
S-4	logistics staff officer
SAMS	Standard Army Maintenance System
SARSS	Standard Army Retail Supply System
SB	supply bulletin
SERE	survival, evasion, resistance, and escape
SF	standard form
SOP	standard operating procedure
SSA	supply support activity
TB	technical bulletin
TC	training circular
TDA	table of distribution and allowances
TM	technical manual
TO	technical order
USAARL	United States Army Aeromedical Research Laboratory

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