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Flying Operations

**MAINTENANCE AND CONFIGURATION
REQUIREMENTS FOR MOBILITY AIR
FORCES (MAF) AIRCREW AND AIRCRAFT-
INSTALLED AIRCREW LIFE SUPPORT
EQUIPMENT (ALSE)**

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This volume implements Air Force Policy Directive (AFPD) 11-3, *Life Support*, and Air Force Instruction (AFI) 11-301, Volume 1, *Aircrew Life Support (ALS) Program*. This volume prescribes policy and incorporates the intent of AFPD 10-9, *Lead Operating Command Weapon Systems Management*. It establishes Air Force standards and defines maintenance and configuration requirements for Mobility Air Forces (MAF) mission design series (MDS), which Headquarters Air Mobility Command (HQ AMC) is the lead command of and maintains configuration control over IAW AFI 63-1201, *Assurance Of Operational Safety, Suitability, & Effectiveness*. It clarifies and standardizes minimum essential quantities of prepositioned aircrew life support equipment (ALSE) by aircraft type and configuration requirements not otherwise specified for using commands. This publication applies to the Air National Guard (ANG) when

published in the ANG IND 2. Refer recommended changes and conflicts between this and other publications through appropriate channels in accordance with (IAW) AFI 33-360, Volume 1, *Publications Management Program*, on Air Force (AF) Form 847, **Recommendation for Change of Publication**. Intervening levels will evaluate all recommendations and forward the AF Form 847 to the next echelon through the lead command before forwarding to Air Staff.

Records Disposition. Maintain and dispose of all records created as a result of processes prescribed in this publication IAW AFMAN 37-139, *Daily Records Disposition Schedule*. This instruction is affected by the Paperwork Reduction Act as amended in 1996. This instruction contains references to field (subordinate level) publications and forms, which will be converted to departmental-level publications and forms and may be obtained from the respective MAJCOM publications office. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

(932AW) This instruction implements Air Force Policy Directive (AFPD) 11-3, *Life Support*. This instruction supplements Air Force Instruction (AFI) 11-301, Volume 2, *Maintenance and Configuration Requirements for Mobility Air Forces (MAF) Aircrew and Aircraft-Installed Aircrew Life Support Equipment*. It describes 932 Airlift Wing (AW) procedures to be used in conjunction with the basic instruction. This supplement applies to all aircrew and aircrew flight equipment personnel operating within the 932 AW. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

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Section A—OVERVIEW

1. General. This volume specifies minimum ALSE to configure C-5, C-9, C-17, C-20, C-21, C-130, C-141, KC-10, and C/KC-135 aircraft and is to be used in conjunction with other MDS configuration publications and applicable technical orders (T.O.). HQ AMC serves as lead command for this publication, as well as aircraft, aircrew, and passenger aircrew life support (ALS) systems related to these MDSs, and ensures the operational safety, suitability, and effectiveness (OSS&E) baselines are preserved IAW AFI 65-1201. It is also understood the using activity will assume OSS&E responsibility for commercial products used on aircraft IAW AFI 65-1201.

1.1. **Supplements.** Major Commands (MAJCOM) with these or similar types of MDS aircraft will supplement this publication to meet their specific mission requirements and identify equipment inspection and maintenance frequencies, as required IAW AFI 33-360, Volume 1. Due to Air Education and Training Command (AETC), Air Force Materiel Command (AFMC), and Air Force Special Operations Command (AFSOC) mission, HQ AETC/DOYL, HQ AFMC/A3V, and HQ AFSOC/A3TL will establish requirements to meet mission needs and is authorized to determine unique requirements for assigned aircraft.

1.2. **Waivers.** Units may request waivers to requirements of this instruction when unique or unusual circumstances or requirements affect the unit's ability to implement stated policy or procedure IAW AFI 33-360, Volume 1 (i.e., compliance with this instruction is creating a hazard, an emergency or special circumstance exists or to protect lives, when necessary to comply with Air Force publications, etc.).

1.3. **Communications.** Using organizations will direct all communications concerning this publication through their respective MAJCOM ALS functional manager.

1.4. **Reference Materials.** A glossary of publications and T.O.s, abbreviations and acronyms, and definitions for terms used in this publication are available (see).

Section B—ROLES AND RESPONSIBILITIES

2. Responsibilities:

2.1. **Commanders.** Ensure all crewmembers and passengers wear or have access to the appropriate ALSE for the route of flight and duration of the mission. Commercially procured items are not authorized for use without prior approval or safe-to-fly recommendation by the respective ALSE Single Manager and MAJCOM ALS office of primary responsibility IAW AFI 11-301, Volume 1.

2.2. Aircrew Life Support (ALS) Function:

2.2.1. Monitor all active and ongoing modifications and time compliance technical orders.

2.2.2. Store, handle, service, and account for items part of the 412A aircrew life support system.

2.2.3. Ensure all ALSE inspections remain current throughout the scheduled mission duration. Ensure aircraft ALSE will have a minimum of 60 days remaining on its current repack and inspection when departing home-station for tanker task force operations, integrated tanker unit deployments (ITUD), and 30 days for channel missions, business efforts, aircraft transfers, etc. Transfer aircraft IAW T.O. 00-20-1, *Preventive Maintenance Program General Policy Requirements and Procedures*.

2.2.4. Inspect and repack integrated survival vest and body armor, survival kits, inner-and-outer life raft accessory containers, and applicable components. Inspect aircraft-installed ALS oxygen (O2) equipment, parachutes, PCKs, and personnel restraint harnesses.

2.2.5. Ensure passenger demonstration equipment is available and prepositioned aboard all passenger-carrying aircraft (refer to paragraph).

2.2.6. Preposition a sufficient quantity of towelettes (70 percent isopropyl alcohol) aboard each aircraft for crewmembers to disinfect prepositioned O2 masks.

2.2.7. Maintain applicable flight simulator ALSE. MAJCOMs will specify frequency and procurement procedures as agreed upon.

2.2.8. Permanently preposition ALSE to the maximum extent possible at all times to provide mission flexibility, especially when aircraft is away from home-station. This will reduce excessive handling and damage of ALSE. Prepare AFTO Form 46, **Prepositioned Life Support Equipment** in duplicate. Maintain a file of the original and completed AFTO Forms 46 by aircraft tail number for all assigned aircraft for historical purposes.

2.2.9. ALS personnel are not responsible for storing, handling, servicing, or accountability of the following items: thermos jugs, fire extinguishers, aircraft portable O2 cylinders, pre-breather O2 assemblies, aircraft oxygen regulators, groundcrew headsets, flak helmets, flak vests, groundcrew chemical defense equipment, pyrotechnic flare pistols, E-and-E kits, passenger service equipment, aircraft escape slides, aircraft first aid kits, hand sanitizers, aircraft night vision goggle lighting components, groundcrew night vision devices, rear vision devices, Emergency Vision Assurance Systems (EVAS), medications (including “go pills”), aircrew tool kits, luggage or baggage loading equipment, non-ALS support equipment, or items not related to the 412A aircrew life support system.

2.2.10. ALS personnel are only responsible for aircrew active noise reduction (ANR) headsets or aircrew helmet noise reduction (AHNR) systems approved by Single Managers. MAJCOMs will establish standardized accountability procedures to issue, store, and maintain ANR headsets IAW T.O. 12R2-4-321-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown for Headset Assembly PRU-57(V)2/P*, to support assigned MDS-series aircraft.

2.2.11. MAJCOMs authorizing use of Commercial Off-the-Shelf (COTS) items unrelated to the 412A aircrew life support system, will ensure technical order guidance or commercial manuals are provided to units to assure COTS items are properly maintained IAW AFI 63-1201.

Section C—ALSE MAINTENANCE AND CONFIGURATION REQUIREMENTS

3. Aircraft-Installed ALSE Procedures. ALSE must be handled with care to avoid damage to this life sustaining equipment. Prepositioning equipment IAW this publication allows flexibility while the aircraft is away from home-station and standardizes ALSE configurations Air Force-wide. The applicable MDS configuration tables within this publication establish minimum equipment requirements. In AETC flying units where AMC is the lead command, units are authorized to load aircraft with only the ALSE required to meet mission requirements. Additionally, AETC Operations Group Commanders (or equivalent) will ensure an operational risk management assessment is accomplished regarding utilization of ALSE to safely support mission requirements. In the event installed ALSE comes due while the aircraft is on alert status or away from home-station, place these items on a red dash until the aircraft goes off alert or returns to home-station. When aircraft is removed from alert status or returns to home-station, upgrade to a red X, keeping within the provisions of T.O. 00-20-1.

3.1. C-5 ALSE:

3.1.1. Configure aircraft IAW AFI 11-2C-5, Volume 3, Addenda A, *C-5 Operations Configuration and Mission Planning* and T.O. 1C-5A-1, *Flight Manual, USAF Series, C-5A and C-5B Airplanes*. Aircraft commanders (AC) may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.1.2. DELETED.

Table 1. C-5 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7, 8)	Permanent- Transfer (see note 8)
Mask, 358-series w/goggles	7	7	5	7
Mask, Firefighter, Smoke (see note 1)	14	14	0	14
Mask, AWACS (MBU-12/P or -5/P)	6	6	0	6
Protective Breathing Equipment (PBE)	8	8	5	8
Mask, Passenger (PAX) Oxygen	101	101	0	101
Emergency PAX Oxygen System (EPOS) (see note 2)	100	100	0	100
Kit, Protective Clothing (PCK)	2	2	0	2
Harness, Restraint, PCU-17/P	3	3	1	3
Parachute, BA-22 (see note 3)	As Required	As Required	0	0
Life Raft, 25-Person (see note 7)	4	4	0	4

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7, 8)	Permanent- Transfer (see note 8)
Life Preserver, Adult-Child (A/C) (see note 4)	100	100	0	100
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Life Preserver, LPU-10/P (see note 5, 7)	10	10	0	10
Vest, Survival (see note 6)	10	10	0	10
Vest, Aircrew Body Armor (Level IIIA)	10	10	0	10
Suit, Anti-Exposure, CWU-16/P (see note 7, 9)	10	10	0	10
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. Part number (P/N) 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled PAX loads.
3. Add parachutes as required by other configuration publications.
4. The A/C is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.
5. The LPU-10/P LPU is required to integrate with ALSE and is designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for this LPU.
6. Survival Vests are required when parachutes are prepositioned aboard aircraft. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.
7. Aircraft flying overwater to Programmed Depot Maintenance (PDM) will load one 25-person life raft, five LPU-10/Ps, and five anti-exposure suits to support crewmembers, as required.
8. For all aircraft transfers, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, to include PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE

and inspection records. Gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment installed.

9. Units are authorized to use the Multifab Survival Limited (MSL) quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.2. C-17 ALSE:

3.2.1. Configure aircraft IAW AFI 11-2C-17, Volume 3, Addenda A, *C-17 Configuration and Mission Planning* and T.O. 1C-17A-1, *Flight Manual, USAF Series, C-17A Aircraft*. Store ALSE not being used in the survival equipment locker located forward and left of the crew entrance door. Suspend parachutes from bar with ML-4 survival kits attached to parachute buckles. ALSE is the only equipment authorized for storage in the C-17 equipment locker. Store personnel restraint harnesses in the right side drawer under the forward loadmaster station. Crewmembers should return all ALSE to storage positions after mission completion. Place EPOS in the under-the-seat pouches per mission directives. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.2.2. Aircraft-installed PBE devices and 358-series quick-don O2 masks are for aircrew use only. Install four PBEs in the cargo compartment and two PBEs in the auxiliary crew area (one on each side of cockpit doorway). The 358-series mask is the primary mask authorized on the flight deck and in the cargo compartment.

Table 2. C-17 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7)	Permanent- Transfer (see note 8)
Mask, 358-series w/goggles	15	15	3	15
Protective Breathing Equipment (PBE)	6	6	3	6
Mask, Passenger (PAX) Oxygen (see note 1)	74	74	74	74
Emergency Passenger Oxygen System (EPOS) (see note 2)	110	110	0	110
Aeromedical Utility Panel Oxygen Mask (see note 3)	12	12	0	12
Kit, Protective Clothing (PCK)	1	1	0	1
Harness, Restraint, PCU-17/P	3	3	1	3

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7)	Permanent- Transfer (see note 8)
Parachute, BA-22 (see note 4)	7	7	0	7
Life Raft, 46-Person	3	3	3	3
Life Preserver, Adult-Child (A/C)	110	110	0	110
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Life Preserver, LPU-10/P (see note 5, 7)	7	7	0	7
Kit, Survival, ML-4	7	7	0	7
Vest, Survival (see note 6)	7	7	0	7
Vest, Aircrew Body Armor (Level IIIA)	7	7	0	7
Suit, Anti-Exposure, CWU-16/P (see note 7, 9)	7	7	0	7
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. 72 ea. above the side wall seats and 2 ea. in the latrine
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled PAX loads.
3. Each aeromedical utility panel contains four masks.
4. Add additional parachutes as required by other configuration publications.
5. LPU-10/P LPU is required to integrate with ALSE and is designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for this LPU.
6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.
7. Aircraft flying overwater to PDM will load three LPU-10/P LPUs and three anti-exposure suits to support crewmembers, as required.
8. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less

than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.

9. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.3. DELETED.

3.3.1. DELETED.

3.3.2. DELETED.

3.3.3. DELETED.

3.3.4. DELETED.

Table 3. DELETED.

3.4. **C-130 ALSE:**

3.4.1. Preposition ALSE in locations determined by AFI 11-2C-130, Volume 3, Addenda A, *C-130 Operations Configuration/Mission Planning* and T.O. 1C-130B-1, T.O. 1C-130H-1, T.O. 1C-130(K)H-1, and T.O. 1C-130(L)H-1, *Flight Manual, USAF Series, C-130 Aircraft*.

3.4.2. When equipment racks are installed, all ALSE except parachutes and attached ML-4 survival kits will be stored on the ALSE racks.

3.4.3. Attach ML-4 survival kits to parachute buckles. ACs may direct repositioning of ALSE based on mission requirements; however, ALSE must be readily accessible for bailout. Crewmembers should return parachutes, kits, and ALSE to their primary position after mission completion. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 4. C-130 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 10)	Permanent Transfer (see note 11)
Mask, 358-series w/goggles	4	4	4	4
Mask, Firefighter, Smoke (see note 1)	2	2	2	2
Protective Breathing Equipment (PBE) (see note 2)	6	6	6	6
Emergency Passenger Oxygen System (EPOS) (see note 3)	100	100	0	100
Kit, Protective Clothing (PCK)	1	1	0	1

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 10)	Permanent Transfer (see note 11)
Harness, Restraint, PCU-17/P	3	3	2	3
Parachute, BA-22 (see note 4)	6	6	0	6
Life Raft, 20-Person, F-2B	4	4	0	4
Life Preserver, Adult-Child (A/C) (see note 5)	80	80	0	80
Life Preserver, LPU-6/P (Infant)	4	4	0	4
Life Preserver, LPU-10/P (see note 6)	6	6	0	6
Kit, Survival, ML-4 (see note 4, 7)	6	6	0	6
Vest, Survival (see note 4, 8)	6	6	0	6
Vest, Aircrew Body Armor (Level IIIA)	6	6	0	6
Suit, Anti-Exposure, CWU-16/P (see note 4, 9, 12)	6	6	0	6
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available. Smoke masks will not be placed on the flight deck.
2. Four PBEs will be placed on the flight deck and two in the cargo compartment.
3. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS for increased scheduled PAX loads. POKs may be used as a substitute until EPOS is available; however, mixing of EPOS and POKs on the same aircraft is not authorized. If POKs are used, provide one POK for each occupant IAW AFI 11-202, Volume 3, *General Flight Rules*. EPOS or POKs are not required when flying local training missions and passengers are not aboard aircraft.
4. Parachutes, ML-4 survival kits, and survival vests are required on all missions. Exception: Refer to note 7 for ML-4 survival kits. A minimum of one parachute, survival kit and vest, and anti-exposure suit per crewmember will be prepositioned aboard the aircraft during increased scheduled crew loads. Place additional parachutes for airdrop missions, as required.

5. The A/C LPU is the preferred LPU. Preposition additional LPUs to meet increased scheduled PAX loads. As a minimum, each aircraft will have one LPU for each passenger. LPU-10/P LPUs are a suitable substitute for the A/C LPU for passenger use until A/C LPUs are available. If LPU-10/P LPUs are used, AC or designated aircrew representative will ensure these LPUs are pre-fitted to passengers prior to take off.
6. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.
7. Only required on designated overwater flights. Quantities will match quantities of parachutes aboard aircraft.
8. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.
9. Only required on designated overwater flights.
10. Aircraft flying overwater to PDM will load one 20-person life raft, five LPU-10/P LPUs, and five anti-exposure suits to support crewmembers, as required.
11. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.
12. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.5. C-141 ALSE:

3.5.1. Configure aircraft and position PAX masks for each aircraft configuration IAW AFI 11-2C-141, Volume 3, Addenda A, *C-141 Operations Configuration/Mission Planning*, and T.O. 1C-141B-1, *Flight Manual, USAF Series, C-141 Aircraft*. Configure each C-141 with an applicable number of PAX masks as missions dictate. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.5.2. DELETED.

Table 5. C-141 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 8)	Permanent Transfer
Mask, 358-series w/goggles	8	8	4	8

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 8)	Permanent Transfer
Mask, Firefighter, Smoke (see note 1)	2	2	0	2
Mask, AWACS (MBU-12/P or - 5/P) (see note 1)	5	5	0	5
Protective Breathing Equipment (PBE)	4	4	4	4
Mask, Passenger (PAX) Oxygen (see note 2)	150	150	0	150
Emergency Passenger Oxygen System (EPOS) (see note 3)	150	150	0	150
Kit, Protective Clothing (PCK)	1	1	0	1
Harness, Restraint, PCU-17/P	2	2	1	2
Parachute, BA-22 (see note 4)	As Required	As Required	0	0
Life Raft, 20-Person, F-2B	6	6	0	6
Life Preserver, Adult-Child (A/C) (see note 5)	160	160	0	160
Life Preserver, LPU-10/P (see note 6)	As Required	6	0	0
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Vest, Survival (see note 7)	As Required	6	0	6
Vest, Aircrew Body Armor (Level IIIA)	0	6	0	6
Suit, Anti-Exposure, CWU-16/P (see note 9)	6	6	0	6
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke and AWACS masks may be used until 358-series oxygen masks and goggles are available.
2. Preposition 50 containers with 3 PAX masks installed.

3. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled PAX loads.
4. Add parachutes as required by other configuration publications.
5. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.
6. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.
7. Survival vests are required when parachutes are prepositioned aboard aircraft for bailout. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.
8. Aircraft flying overwater to PDM will load one 20-person life raft, four A/C LPUs, and four anti-exposure suits to support crewmembers, as required.
9. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.6. **KC-10 ALSE:**

3.6.1. Configure aircraft IAW AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures* and T.O. 1C-10(K)A-1, *Flight Manual, USAF Series, KC-10A Aircraft*. ALSE is contractor operated and maintained base supply (COMBS) provided and ALS maintained. Responsibilities are as followed:

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

3.6.1.2. Each KC-10 ALS shop will maintain a minimum of five 7-person life rafts for the 25- and 27-pallet configuration (Code E).

3.6.1.3. Each KC-10 ALS shop will build up one auxiliary survival kit (ASK) for installation on each assigned aircraft. To assemble this kit, line a 7-person accessory kit with 1-inch Etha Foam, ensuring it will float and pack with survival components (see). Document inspections on applicable AFTO Forms and attach a DD Form 1574, **Serviceable Tag -- Materiel**, to each kit annotating date inspected and date due next inspection, and ensure the time-change information is annotated on the reverse side of tag. Stencil each ASK with 1-inch black letters to read as follows:

AUXILIARY SURVIVAL KIT, KC-10

SURVIVAL COMPONENTS INSIDE

3.6.2. Preposition two PBEs on KC-10s; one in the boom operator's compartment and one in the cockpit. Position and install the PBEs in such a way to allow crewmembers quick access at all times in case of an emergency.

3.6.3. The aircraft ALSE compartments are restricted to storing anti-exposure suits, infant cots, O2 masks' six foot hose and cable assemblies, a 7-person life raft, survival

vests, aircrew body armor, MIL-G-635 goggles, and an ASK. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 6. KC-10 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input	Permanent-Transfer (see note 8)
Mask, 358-series w/goggles	16	16	10	16
Protective Breathing Equipment (PBE)	2	2	2	2
Hose, 6-Ft. w/cable assemblies	4	4	0	4
Emergency Passenger Oxygen System (EPOS) (see note 1)	24	As Required	(see note 1)	24
Kit, Protective Clothing (PCK)	1	1	0	1
Goggle, Flash Blindness, MIL-G-635	3	3	0	3
Life Raft, 7-Person, LRU-1/P (see note 2)	As Required	As Required	0	0
Life Preserver, Adult-Child (A/C) (see note 3)	21	As Required	0	21
Life Preserver, LPU-6/P (Infant) (see note 4)	4	4	0	4
Life Preserver, LPU-10/P (see note 5)	4	4	0	4
Kit, Auxiliary Survival (ASK)	1	1	0	1
Vest, Survival (see note 6)	4	4	0	4
Vest, Aircrew Body Armor (Level IIIA)	4	4	0	4
Suit, Anti-Exposure, CWU-16/P (see note 8)	4	4	0	4
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for individual

accommodation kit (IAK) configurations, as required. Preposition one EPOS per maintenance personnel during PDM input.

2. Preposition raft for 25- and 27-pallet configuration only (Code E).
3. Preposition additional LPUs for IAKs configurations, as required. As a minimum, each aircraft will have one LPU for each crewmember and passenger. For IAK configuration, preposition 80 LPUs.
4. Maintain 4 ea. per IAK or the capability to configure 50% of PAI, whichever is greater.
5. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.
6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.
7. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.
8. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.7. C/KC-135 ALSE:

3.7.1. Configure aircraft IAW AFI 11-2KC-135, Volume 3, Addenda A, *C/KC-135 Aircraft Configuration*, T.O. 1C-135(K)R-1, *Flight Manual, USAF Series, KC-135R Aircraft*, and T.O. 1C-135(K)E(II)-1, *Flight Manual, USAF Series, KC-135E Aircraft*.

3.7.2. Attach survival kits to parachute buckles and hang in the rear of the aircraft. ACs may direct repositioning of ALSE based on mission requirements; however, ALSE must be readily accessible for bailout. Crewmembers should return parachutes, kits, and ALSE to their primary position after mission completion. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.7.3. Live-Aboard Accommodations.

3.7.3.1. Units will establish aircraft live-aboard capability consisting of live-aboard kits (LAK), 3 cases of cold weather (CW) or 4 cases of meal-ready-to-eat rations and 1,800 ounces of water as a minimum IAW AMCI 10-450, Volume 3, *Aircraft Performance Factors* (classified). This will allow aircrew to reside on the aircraft for a minimum of three days at forward operating locations in support of OPLAN 8044. LAK components are listed in this publication (see). Not applicable to AETC and AFMC.

3.7.3.2. Each organization (supporting OPLAN 8044) will have sufficient LAKs (plus spares) for all PAI aircraft. ALS will build LAKs using A-3 bags, A-21 canvas containers, or equivalent. Inner containers should be assembled with rigid reinforced fiberboard boxes or equivalent. Inspect kits and contents annually. Document AFTO Form 338, **Survival Kit Record**, as required. Attach a DD Form 1574 to the A-3 bags or A-21 canvas containers, annotating date inspected and date due next inspection.

3.7.3.3. Requirements for subsistence items are shared responsibilities among ALS (delivery, uploading, and downloading), Operations and Plans (quantify as per mission needs), and Services (commissary liaison, approval agency, and memorandum of understanding [MOU]). Representatives from these organizations will establish a MOU. The MOU will specify and define responsibilities for forecasting, funding, requisitioning, storing, and issuing rations to best meet the wing's mission. Responsibilities for subsistence rations and water are contained in AFI 25-101, *War Reserve Material (WRM) Program Guidance and Procedures*. Due to the lack of proper refrigerated storage facilities within ALS facilities, some rations will require courtesy storage at appropriate facilities.

3.7.3.4. During live-aboard conditions, carbon monoxide detectors are required for all models of KC-135 aircraft.

3.8. Operational Support Airlift (OSA) Aircraft:

3.8.1. Configure C-9 aircraft IAW AFI 11-2C-9, Volume 3, *C-9 Operations Procedures* and T.O. 1C-9A-1, *Flight Manual, USAF Series, C-9A Aircraft*. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS). The minimum survival kit (MSK) components for C-9 aircraft are listed in this publication (see).

Table 8. C-9 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7)	Permanent- Transfer
Mask, 358-series w/goggles	3	3	3	3
Mask, Firefighter, Smoke (see note 1)	1	1	0	1
Mask, AWACS (MBU-12/P or -5/P) (see note 2)	5	5	0	5
Protective Breathing Equipment (PBE)	8	8	3	8
Mask, Passenger Oxygen (PAX)	67	67	67	67
Emergency Passenger Oxygen System (EPOS) (see note 3)	50	50	0	50
Harness, Restraint, PCU-17/P	1	1	1	1

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7)	Permanent- Transfer
Life Raft, 20-Person, F-2B	3	3	0	3
Life Preserver, Adult-Child (A/C) (see note 4)	50	50	0	50
Life Preserver, LPU-6/P (Infant)	5	5	0	5
Life Preserver, LPU-10/P (see note 5)	0	8	0	8
Vest, Survival (see note 6)	0	8	0	8
Vest, Aircrew Body Armor (Level IIIA)	0	8	0	8
Suit, Anti-Exposure, CWU-16/P (see note 8)	8	8	0	8
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available.
2. AWACS masks may be replaced with P/N 358-1506 series mask.
3. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled PAX loads.
4. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.
5. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.
6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.
7. Aircraft flying overwater to PDM will load one 20-person life raft, three LPU-10/P LPUs, and three anti-exposure suits to support crewmembers, as required.
8. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.8.2. Configure C-20 aircraft IAW AFI 11-2SAM/CSM, Volume 3, *Special Air Missions (SAM) Command Support Mission (CSM) Operations Procedures* and T.O. 1C-20A-1, *Flight Manual, USAF Series, C-20A Aircraft*. ALSE installed on C-20 aircraft is

COMBS provided. ALS assists in the maintenance of equipment. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 9. C-20 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 3)	Permanent - Transfer
Mask, EROS, w/goggles	3	3	3	3
Mask, Firefighter, Smoke (see note 1)	2	2	0	2
Protective Breathing Equipment (PBE)	2	2	2	2
Mask, Passenger Oxygen (PAX)	20	20	20	20
Emergency Passenger Oxygen System (EPOS) (see note 2)	19	19	0	19
Life Raft, 7- or 9-person	3	3	0	3
Life Preserver, Adult-Child (A/C)	19	19	0	19
Suit, Anti-Exposure, CWU-16/P (see note 4)	3	3	0	3
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. Use Scott Commercial Smoke Mask, P/N 10100 or 10800 series.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger.
3. Aircraft flying overwater to PDM will load one life raft, three LPU-10/P LPUs, and three anti-exposure suits to support crewmembers, as required.
4. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.8.3. Configure C-21 aircraft IAW AFI 11-2C-21, Volume 3, *C-21 Operations Procedures* and T.O. 1C-21A-1, *USAF Model, C-21A Aircraft Flight Manual*. ALS will maintain sufficient quantities of life rafts for C-21 aircraft to satisfy contingency requirements based on unit type codes (UTC) and to support overwater flights. Non-mobility units will maintain at least one T-9AF or LRU-14-series life raft for contingency purposes. T-9AF and LRU-14-series life raft accessory components are listed in this publication (see). The MSK components for C-21 aircraft are listed in this publication (see). ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure

they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 10. C-21 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 5)	Permanent - Transfer
Mask, 359-series w/goggles	2	2	2	2
Protective Breathing Equipment (PBE)	2	2	2	2
Mask, Passenger (PAX) Oxygen	11	11	11	11
Emergency Passenger Oxygen System (EPOS) (see note 1)	8	8	0	8
Life Raft, T-9AF/LRU-14-series (see note 2)	0	1	0	1
Life Preserver, Adult-Child (A/C)	10	10	0	10
Life Preserver, LPU-10/P (see note 3)	0	2	0	2
Vest, Survival (see note 4)	0	2	0	2
Vest, Aircrew Body Armor (Level IIIA)	0	2	0	2
Suit, Anti-Exposure, CWU-16/P (see note 6)	As Required	2	0	2
Kit, Minimum Survival (MSK)	1	1	1	1
Kit, Passenger Demonstration	1	1	0	1

NOTE:

1. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger.
2. Units are authorized to use the Air Cruisers Company AC-9 (9-person) life raft as a substitute for the T-9AF or LRU-14-series life rafts.
3. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.
4. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.
5. Aircraft flying overwater to PDM will load one life raft, two LPU-10/P LPUs, and two anti-exposure suits to support crewmembers, as required.

6. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.9. **VIP Special Air Missions (VIPSAM) ALSE.** Due to the unique mission and limited assets of the VIPSAM operations and other unique missions, each MAJCOM ALS staff is responsible for supplementing this publication with requirements relevant to their respective units. Each VIPSAM unit will provide their respective MAJCOM with an aircraft ALSE configuration table for each MDS assigned.

3.10. **Aeromedical Evacuation (AE) Missions:**

3.10.1. ALS units, when supporting AE missions and aircrew, will build and maintain the equipment listed in . The equipment will be placed in kits assigned to, and deployed with, an AE in-flight kit (UTC FFQDM). Each ALS unit supporting an AE squadron will maintain a minimum of 2 AE ALS kits () for WRM. Exception: PACAF and USAFE ALS squadrons supporting AE operations will build and maintain eight (8) kits. Individual MAJCOMs will direct what units will maintain for local training and operational missions.

3.10.2. Travis, McGuire and Charleston AFBs will maintain the number of AECM support kits listed in . Seventy five percent (75%) of the total number of AECM support kits at each unit will be maintained ready at all times. If the AECM support kit capability goes below the 75% level, the unit will immediately notify HQ AMC/DOT in writing. The notification must include a detailed analysis of the problem and a projected get-well date.

3.10.3. Once built, MAJCOMs may authorize ALS sections maintaining AECM support kits to seal and place the kits in serviceable storage inspection status and inspect on an annual basis if time-change items' expiration dates permit. Upon notification of the need to deploy the AECM support kits, the ALS section will inspect the kit and place each item on a normal inspection cycle and deliver the kits to the designated organization within 24 hours.

Table 11. AECM SUPPORT KIT EQUIPMENT

AE EQUIPMENT	AECM SUPPORT KIT EQUIPMENT QTY
Mask, 358-series w/goggles Notes 1, 2	7
Survival Vest Note 3	7
Body Armor Note 3	7
Life Pres, LPU-10/P Note 4	7
Suit, Anti-Exposure, CWU-16/P	7

AE EQUIPMENT	AECM SUPPORT KIT EQUIPMENT QTY
Note 4, 5	

NOTE:

1. Cabin/Cargo Area Aircrews will use the EPOS already prepositioned on the aircraft for emergency oxygen requirements for preplanned flights up to flight level 350 (FL350). For preplanned flights above FL350, all AE aircrew must have a quick-don mask with goggles attached (paragraph) to a walk-around bottle available for use.
2. Medical crew director (MCD) and charge medical technician (CMT) must have communication capability in their quick-don mask.
3. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. The Air Ace™/Ace Advantage™ [Air Advantage™] (paragraph) is the primary integrated survival vest and aircrew body armor for AE Squadron personnel. The SRU-21/P is also authorized (paragraph). AE Squadron personnel are authorized to request assigned equipment for unit training events.
4. Required for preplanned overwater flights only.
5. CWU-16/P or MAJCOM approved equivalent IAW T.O. 1-1-641.

Table 12. ALS AECM SUPPORT KIT HUB LOCATIONS

ALS AECM Support Kit Hub Locations	Authorized Number of Kits	75 Percent Level of Total Authorization
Travis AFB (60 OSS)	50	38
McGuire AFB (305 OSS)	50	38
Charleston AFB (437 OSS)	22	16

3.10.4. Civil Reserve Air Fleet (CRAF) Missions. All AE aircrews flying on CRAF aircraft are exempt from having to use the ALS equipment in , except for the 358-series quick-don mask. These masks are required for protection from smoke and fumes and emergency decompressions. Travis and Charleston AFBs will maintain twelve (12) and thirteen (13) kits respectively, containing seven (7) each LPU-6/P infant cot life preservers and eleven (11) each EPOS to support AE CRAF missions. These CRAF support kits will only be mobilized to support CRAF AE operations.

3.10.5. **Table 13** lists contact information for each hub location's medical logistics area controlling the medical portion of the FFQDM kit. Each ALS section at AE hub locations will contact and establish a local notification and delivery plan of the ALS portion of the kits to the medical logistics office (paragraph). Once coordinated, forward the local plan to HQ AMC/DOTL and send an info copy to HQ USAF/A3OT. Include these plans in the next review or revision of the unit's operating instructions or local directives.

Table 13. MEDICAL LOGISTICS CONTACT INFORMATION

TRAVIS AFB	MCGUIRE AFB	CHARLESTON AFB
60 MDSS/SGSL 101 Bodin Circle (Bldg 777) Travis AFB CA 94535-1825	305 MDSS/SGSLW 3418 McGuire Road McGuire AFB NJ 08641	437 MDSS/SGSL 204 W. Hill Blvd (Bldg 364) Charleston AFB SC 29404-5300
DSN 779-7973/3962	DSN: 650-4818/6454/9313	DSN 673-6529/6527/6761
COMM: (707) 423-XXXX	COMM: (609) 754-XXXX	COMM: (843) 963-XXXX
FM4427	FM4484	FM4418
POC Position: NCOIC WRM	POC Position: NCOIC WRM	POC Position: NCOIC WRM

3.11. Aircraft-Installed Aircrew Oxygen Masks:

Table 14. (Added-932AW) C-40C Aircraft AFE Configuration.

Minimum Required Equipment	Routine	Contingency	PDM	Permanent-Transfer
Emergency Respirator Oxygen System (EROS)	4	4	4	4
Therapeutic Mask, Commercial (See Note 1)	8	8	8	8
Smoke Hood, Commercial (See Note 1)	3	3	3	3
Passenger Oxygen Mask	108	108	108	108
Life Raft, Commercial, 46-Person	2	2	2	2
Life Preserver, Commercial, Adult-Child	52	52	52	52
Life Preserver, LPU-6/P (Infant)	2	2	0	2
Survival Radio, PRC-90 or CSEL	2	2	0	2
Passenger Demonstration Kit	1	1	1	1
NOTES:				
1. Aircrew flight equipment is only responsible for performing an inventory of the therapeutic masks and smoke hoods.				

3.11.1. Quick-don O2 masks (P/N 358-1506V, P/N 358-1390V3 [KC-10s], and P/N 359-A1C12 [C-21s]) with anti-smoke goggles (P/N 322-70) attached to mask are the preferred aircrew smoke and fume protection system. This mask and goggle system may also be used as a preferred substitute for firefighter smoke masks.

3.11.2. Position 358- and 359-series quick-don O2 masks and goggles at each crew station. Masks and goggles and other safety equipment must remain with the aircraft while in depot to conduct functional check flights.

3.11.3. Control masks either by serial number or locally assigned number.

3.11.4. Dust covers or mask bags provide critical protection and are required on all aircraft-installed aircrew O2 masks.

3.11.5. O2 masks installed in the crew bunk area aboard C-5s do not require microphones.

3.11.6. Conduct routine inspections of aircraft-installed aircrew oxygen masks (i.e., 358-series, 359-series, AWACS, etc.) on 30-day intervals. Complete disassembly and cleaning inspections are accomplished every 90-days. MAJCOMs should continue to emphasize oxygen mask cleanliness and serviceability during postflight, mission termination and routine 30-day mask inspections. **EXCEPTION:** Firefighter smoke masks are inspected at intervals IAW T.O. 15X5-5-3-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Fire Fighters and Oxygen Smoke Mask Assemblies*.

3.12. Life Rafts:

3.12.1. Position sufficient types of life rafts aboard each aircraft on overwater flights to accommodate all aircrew and passengers IAW T.O. 14S3-1-3, *Type and Number of Individual Survival Kit Containers and Life Rafts To Be Used In Various Type Aircraft*, and applicable MDS configuration tables. Place additional life rafts aboard aircraft when required. Ensure a DD Form 1574 is attached to each aircraft life raft and aircraft actuation handles for life rafts installed in wing well, silos, etc. Ensure the time-change information is annotated on the reverse side of tag IAW T.O. 14S-1-102. C-141 units will maintain additional life rafts IAW the allowance standard (AS 016) for contingencies.

3.12.2. The Air Cruisers Company AC-9 (9-person) life raft received a safe-to-fly recommendation from the ALSE Single Manager. Units are authorized to use the AC-9 as a substitute for the T-9AF or LRU-14-series life rafts.

3.13. Life Preserver Units (LPU):

3.13.1. The A/C LPU is the preferred LPU for aircrew and passengers during normal ditching situations. Units should pursue replacement of LPU-10/P LPUs for passenger use. The A/C LPU does not require pre-fitting prior to flight and is easier to don during emergency situations. As a minimum, each aircraft will have one LPU for each passenger during overwater flights. C-141 units will maintain additional LPUs IAW AS 016 for contingencies.

3.13.2. The LPU-10/P LPUs are required and are designed to integrate with ALSE. Crewmembers wearing parachutes, survival vests, anti-exposure suits, and aircrew chemical defense equipment must use these LPUs during bailout or ditching. A/C LPUs are not compatible for use with ALSE and must not be used as a substitute for these LPUs.

3.14. **Protective Breathing Equipment (PBE).** Units will utilize PBEs, P/N 802300-14, with the fire retardant polyethylene (green) storage container, P/N 803753-01, and neoprene neck seal. PBE P/N 802300-14 is considered the primary device. Units may still utilize Emergency Escape Breathing Devices (EEBD), P/N 802300-11, until item's service-life expires. Units will not substitute above items with PBE, P/N 802300-01, with the polyethylene (daglo orange) container and urethane neck seal. ALS personnel should limit

how often the PBEs or EEEDs are removed from or installed into the container to reduce wear-and-tear on the vacuum-sealed bag. PBEs or EEEDs will remain in their original "hard" carrying case to provide fire and puncture-proof protection.

3.14.1. PBEs are the primary devices used to locate and extinguish an in-flight fire, and afford aircrew the required protection IAW Federal Aviation Regulation Section 121.337, *Protective Breathing Equipment*, and technical standard orders (TSO) C99, *Protective Breathing Equipment*, and TSO-C116, *Crewmember Protective Breathing Equipment*.

3.15. Passenger Oxygen Kits (POK):

3.15.1. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used, as suitable substitutes for EPOS until EPOS is available. For C-130s and C/KC-135s, preposition POKs at passenger positions. Secure the POK on the upper seat support tube using a tie-down strap (NSN 5975-00-984-6582 or equivalent) and a quick release snap (i.e., FASTTEX buckle, P/N SR1, or equivalent). Position the POK bags to the forward side of the passenger and between the seat back webbing to ensure rapid access. Ensure caution tag and retainer pin is removed when POKs are prepositioned on aircraft. For KC-135 aircraft, position three EPOS or POKs aboard aircraft: one in the latrine, one in the cockpit, and one at the galley. AETC students are allowed to preposition POKs, as required.

3.15.2. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used, as suitable substitutes for EPOS until EPOS is available. For C-130s and C/KC-135s, preposition POKs at passenger positions.

4. Survival Vest and Aircrew Body Armor:

4.1. During contingency missions, permanently prepositioned the integrated Air Ace™/Ace Advantage™ [Air Advantage™] survival vest and aircrew body armor (on all aircraft as indicated in the applicable MDS configuration tables. A trademark of Survival Incorporated. C-17, C-130, KC-10, and KC-135 aircraft will have survival vests prepositioned aboard aircraft at all times.

4.2. Survival vests will contain the mandatory communication and signaling devices needed to aid aircrew during survival IAW T.O. 14S1-3-51, *Base Assembly, Use and Maintenance of Survival Kits*, and this publication (see). Time-change items and munitions installed in survival vests going to depot facilities will have a minimum of one-year remaining on service-life. When the survival vest is carried on commercial airlines, remove the following items IAW T.O. 00-20-1: Signal, smoke and illumination, MK-13 or MK-124; Signal kit, personnel distress, A/P 25S-5A; container, waterproof, with matches; and knife, pocket.

4.3. SRU-21/P survival vests are still authorized until the integrated survival vest and body armor becomes available. AECMs are also authorized integrated survival vest and body armor or SRU-21/P survival vests.

4.4. Integrated survival vest and body armor will be donned prior to going into harm's way. Safeguard survival vests and body armor by placing in a metal container (NSN 5140-00-226-9019), footlocker (NSN 8460-00-243-3234), or equivalent.

4.4.1. Stencil each container with at least 1-inch letters (all caps) on top and front of container to read as follows:

**AIRCREW
CONTINGENCY KIT
SURVIVAL VESTS/BODY ARMOR**

4.4.2. Stencil each container with at least 1-inch letters (all caps) on ends to read as follows:

Command (e.g., AMC, USAFE, PACAF, AFRC, or ANG)	AMC
Unit/ (e.g., 123 AW or 456 ARW)	123 AW
Unit Personnel Accounting Symbol (PAS) Code	SFILFS2X
Local ID Number (e.g., Kit 1A)	KIT 1A

5. ML-4 Survival Kits. ML-4 survival kits will contain the mandatory components listed in this publication (see). Items not identified as mandatory are recommended components. MAJCOMs have the option to duplicate signaling devices currently installed in survival vests or mandate the survival vest as a required item for bailout.

6. Anti-Exposure Suits:

6.1. Anti-exposure suit requirements are based on aircraft PAI and primary crew complement when pre-planned overwater flights meet the criteria of T.O. 1-1-641, *Minimum Equipment Requirements for Overwater, Arctic, and Desert-Tropic Flights*, and intent of AFI 11-202, Volume 3. The CWU-16/P may be issued to satisfy this requirement. The anti-exposure suit will provide protection for and allow crewmembers to remain in the water longer while assisting passengers into the life raft.

6.2. Permanently preposition anti-exposure suits on aircraft IAW MDS configuration tables. Units may bulk store suits in an A-3 bag or equivalent with a DD Form 1574 attached annotating date inspected and date due next inspection.

6.3. The Multifab Survival Limited (MSL) quick-don anti-exposure suit received a safe-to-fly recommendation from the ALSE Single Manager. Units are authorized to use the MSL as a substitute for the CWU-16/P.

7. Survival Accessory Containers:

7.1. Units will ensure survival accessory containers contain the mandatory components listed in the applicable attachments of this publication and T.O. 14S1-3-51, Tables 8-1 and 11-1. Components annotated with an asterisk (*) in attachments of this publication are mandatory and will render the accessory container, survival vest or kit unserviceable when not installed. Place accessories in appropriate inner and outer life raft accessory containers IAW tables in T.O. 14S-1-102.

7.2. Mandatory components are as follows: Radio, PRC-90 series; compass, magnetic; signal mirror; signal, smoke and illumination, MK-13 or MK-124; kit, personnel distress, A/P 25S-5A; strobe light, SDU-5/E (with infrared [IR] filter and flash guard); and kit, first aid.

8. Protective Clothing Kit (PCK):

8.1. PCKs contain protective clothing for use by aircrew during emergencies aboard aircraft carrying hazardous cargo IAW Air Force Joint Manual (AFJMAN) 24-204, *Preparing Hazardous Materials for Military Air Shipments*. Each PCK will contain the components listed in this publication (see). Units may build kits IAW AFJMAN 24-204 or purchase commercial kits meeting or exceeding AFJMAN 24-204 requirements. Units should contact base environmental or fire protection personnel to determine adequacy of commercial kits being considered.

8.2. Pack and seal PCKs in a locally manufactured metal or fiberglass container not to exceed 12 x 18 x 24 inches. Attach a DD Form 1574 to each container indicating the date inspected and date due next inspection. Stencil each PCK with at least 1-inch letters with the following:

**KIT, PROTECTIVE CLOTHING
EMERGENCY USE FOR IN-FLIGHT
HANDLING OF HAZARDOUS CARGO
ACIDS, TOXIC MATERIALS,
CLASS B AND C POISONS**

9. Personnel Restraint Harnesses:

9.1. Personnel restraint harnesses will remain with the aircraft during depot-level maintenance, as required.

9.2. Personnel restraint harnesses will be equipped with oxygen connector brackets.

10. Personnel Parachutes:

10.1. Personnel parachutes provide aircrew members bailout capability during emergencies. Preposition sufficient types of parachutes aboard each MDS to accommodate all aircrew IAW T.O. 14D1-1-1, *Styles of Parachutes To Be Used In Various Type Aircraft*, and applicable MDS tables.

10.2. Personnel parachutes will be equipped with emergency locator beacons, automatic releases, emergency bailout oxygen cylinders, hook-blade knives, oxygen connector brackets, AFP 64-15, *Survival and Emergency Uses of the Parachute* (will convert to Air Force Pamphlet [AFPAM] 36-2242), Survival Kit (SRU-16/P), and personnel lowering devices (PLD). The installation of PLDs is at the discretion of each MAJCOM.

10.2.1. DELETED.

10.2.2. The installation of PLDs is at the discretion of each MAJCOM.

10.3. Flying helmets are required for bailout and aircrew performing air defense system missions. Helmets will be carried on all missions requiring parachutes or anytime personnel parachutes are prepositioned aboard aircraft (not applicable when carrying passengers). Flying helmets must be used in conjunction with the parachute to avoid head injuries. Unless otherwise directed in the AFI 11-2MDS, Volume 3 series publications for mission requirements. In addition, flight helmets are required whenever the aircrew requires night vision devices (NVD) and flash-blindness devices (MIL-G-635 or EEU-series goggles).

Additionally, helmets will be retained for aircrew wearing aircrew chemical defense equipment that require NVDs plus flash-blindness devices to perform their mission in a contaminated environment.

10.4. Time-change items and pyrotechnics installed in parachutes going to depot facilities will have a minimum of one-year remaining on service-life.

11. Minimum Survival Kit (MSK):

11.1. MSKs are mandatory when life rafts are not installed during PDM input from stateside locations. Therefore, during aircraft ferry and depot deliveries, use the MSK as a means of providing minimum signaling and survival equipment needs. MAJCOMs have the option of using a survival vest as a substitute for the MSK during PDM inputs (vests are required when carrying parachutes aboard the aircraft).

11.2. MSK components are listed in this publication (see). Place these survival components in a locally purchased or manufactured metal or fiberglass container, or equivalent, to provide protection of survival items.

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

12. Passenger Demonstration Equipment:

12.1. The AC or a designated aircrew representative is responsible for briefing passengers on emergency equipment before each flight IAW AFI 11-202, Volume 3, T.O. 14D1-2-1, *Personnel Parachutes*, and T.O. 14S-1-102. Passenger-carrying aircraft will have a set of demonstration ALSE mirroring all onboard individually issued passenger equipment (i.e., LPUs, EPOS, oxygen masks, etc.). Do not include LPU-6/P LPUs as part of the demonstration kit.

12.2. To keep this equipment segregated from operational assets, store demonstration equipment in a “red” locally manufactured storage container. Stencil both the storage container and each piece of ALSE "FOR DEMONSTRATION ONLY" in 1/2-inch black (or contrasting color) lettering.

12.3. C-141 PAX masks; remove the container attaching plates and connectors and install two (2) demonstration passenger masks in container.

12.4. The demonstration POK will have a yellow carrying bag.

12.5. Store the demonstration EPOS in the yellow “training” pouch.

13. Prescribed Forms. DD Form 1574, Serviceable Tag – Materiel, AFTO Form 46, Positioned Life Support Equipment, AFTO Form 338, Survival Kit Record.

CARROL H. CHANDLER, Lt Gen, USAF
DCS/Air & Space Operations

(932AW)

ALBERT V. LUPENSKI, Colonel, USAFR
Commander

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

AFPD 10-9, *Lead Operating Command Weapon Systems Management*

AFPD 11-3, *Life Support*

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

AFI 11-301, Volume 1, *Aircrew Life Support Program*

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

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

AFI 41-302, *Aeromedical Evacuation Operations and Management*

AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*

AFPAM 36-2246, *Aircrew Survival*

AFP 64-15, *Survival and Emergency Uses of the Parachute* (will convert to AFPAM 36-2242)

AFI 11-2C-5, Volume 3, Addenda A, *C-5 Operations Configuration and Mission Planning*

AFI 11-2C-9, Volume 3, *C-9 Operations Procedures*

AFI 11-2C-17, Volume 3, Addenda A, *C-17 Configuration and Mission Planning*

AFI 11-2C-21, Volume 3, *C-21 Operations Procedures*

AFI 11-2C-130, Volume 3, Addenda A, *C-130 Operations Configuration/Mission Planning*

AFI 11-2C-141, Volume 3, Addenda A, *C-141 Operations Configuration/Mission Planning*

AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures*

AFI 11-2KC-135, Volume 3, Addenda A, *C/KC-135 Aircraft Configuration*

AFI 11-2SAM/CSM, Volume 3, *Special Air Missions (SAM) Command Support Mission (CSM) Operations Procedures*

MCI 11-203. DELETED.

MCI 11-204. DELETED.

MCI 11-209. DELETED.

MCI 11-221. DELETED.

MCI 11-258. DELETED.

MCR 55-10. DELETED.

MCR 55-135. DELETED.

AMCR 55-4. DELETED.

ACCI 11-301, *Aircrew Life Support Program*

AETCI 11-301, *Aircrew Life Support Program*
AFMCI 11-301, *Aircrew Life Support Program*
AMCI 11-301, *Aircrew Life Support Program*
PACAFI 11-301, *Aircrew Life Support Program*
USAFEI 11-301, *Aircrew Life Support Program*
AFI 11-301/AFRC SUP1, *Aircrew Life Support Program*
AFI 11-301/ANG SUP1, *Aircrew Life Support Program*
T.O. 0-1-01, *Numerical Index*
T.O. 0-1-02, *General Technical Orders*
T.O. 0-1-1-1, *General Aircraft*
T.O. 0-1-11, *Armament Equipment*
T.O. 0-1-13, *Aircraft Furnishings and In-flight Feeding Equipment, Cargo Loading, Aerial Delivery and Recovery Equipment, Aircraft Fire Detection and Extinguishing Equipment*
T.O. 0-1-14, *Deceleration Devices and Personal and Survival Equipment*
T.O. 0-1-15, *Aircraft and Missile Temperature Control, Pressurizing, Air Conditioning, Heating, Ice Eliminating, and Oxygen Equipment*
T.O. 00-5-1, *AF Technical Order Systems*
T.O. 00-5-2, *Technical Order Distribution System*
T.O. 00-20-1, *Preventive Maintenance Program General Policy Requirements and Procedures*
T.O. 00-20-5, *Aircraft, Drone, Aircrew Training Devices, Engines, and Air-Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents*
T.O. 00-25-241, *Parachutes Logs and Records*
T.O. 1-1-641, *Minimum Equipment Requirements for Overwater, Arctic, and Desert-Tropic Flights*
T.O. 1C-5A-1, *Flight Manual, USAF Series, C-5A and C-5B Airplanes*
T.O. 1C-9A-1, *Flight Manual, USAF Series, C-9A Aircraft*
T.O. 1C-10(K)A-1, *Flight Manual, USAF Series, KC-10A Aircraft*
T.O. 1C-17A-1, *Flight Manual, USAF Series, C-17A Aircraft*
T.O. 1C-20A-1, *Flight Manual, USAF Series, C-20A Aircraft*
T.O. 1C-21A-1, *USAF Model, C-21A Aircraft Flight Manual, Description and Operation Aircraft General Description*
T.O. 1C-27A-1. DELETED.
T.O. 1C-130B-1, *Flight Manual, USAF Series, C-130 Aircraft*
T.O. 1C-130H-1, *Flight Manual, USAF Series, C-130 Aircraft*

T.O. 1C-130(K)H-1, *Flight Manual, USAF Series, C-130 Aircraft*
 T.O. 1C-130(L)H-1, *Flight Manual, USAF Series, C-130 Aircraft*
 T.O. 1C-135(K)R-1, *Flight Manual, USAF Series, KC-135R Aircraft*
 T.O. 1C-135(K)E(II)-1, *Flight Manual, USAF Series, KC-135E Aircraft*
 T.O. 1C-141B-1, *Flight Manual, USAF Series, C-141 Aircraft*
 11A-series, *Munitions*
 11P-series, *Cartridges for Escape Systems*
 13A-series, *Aircraft Furnishings - Harnesses*
 14D-series, *Parachutes*
 T.O. 14D1-1-1, *Styles of Parachutes To Be Used In Various Type Aircraft*
 T.O. 14D1-2-1, *Personnel Parachutes*
 14P-series, *Personal Equipment Clothing*
 14S-series, *Survival Equipment, General Life Preservers, Life Rafts, Strobe Lights, etc.*
 T.O. 14S-1-102, *Maintenance Instructions With Parts Breakdown USAF Flotation Equipment*
 T.O. 14S1-3-51, *Base Assembly, Use and Maintenance of Survival Kits*
 T.O. 14S3-1-3, *Type and Number of Individual Survival Kit Containers and Life Rafts To Be Used In Various Type Aircraft*
 15X-series, *Oxygen Cylinders, Masks, and Regulators*
 T.O. 15X1-4-2-12, *Operation and Field Maintenance Instructions Emergency Bail-Out Oxygen Cylinder Assemblies*
12R2-4-321-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown for Headset Assembly, PRU-57(V)2/P*
15X5-4-10-1, *Operational and Maintenance Instructions With Illustrated Parts Breakdown for Mask Assembly, Folding, Quick-Don Part No. 358-1506V or 358-1506V-1*
15X5-5-3-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Fire Fighters and Oxygen Smoke Mask Assemblies*

Abbreviations and Acronyms

AC—Aircraft Commander
A/C—Adult-Child
AECM—Aeromedical Evacuation Crew Member
AETC—Air Education and Training Command
AFI—Air Force Instruction
AFJMAN—Air Force Joint Manual
AFMC—Air Force Materiel Command

AFPAM—Air Force Pamphlet
AFPD—Air Force Policy Directive
ALSE—Aircrew Life Support Equipment
AMW—Air Mobility Wing
ANG—Air National Guard
ASK—Auxiliary Survival Kit
CHEMOX—Chemical-Oxygen
COMBS—Contractor Operated and Maintained Base Supply
EEBD—DELETED
EPOS—Emergency Passenger Oxygen System
IAU—Increased Accommodation Unit
IR—Infrared
ITUD—Integrated Tanker Unit Deployment
LAK—Live-Aboard-Kit
LPU—Life Preserver Unit
LSE—DELETED
MAJCOM—Major Command
MCI—DELETED
MDS—Mission Design Series
MOU—Memorandum of Understanding
MSK—Minimum Survival Kit
MSL—Multifab Survival Limited
O2—Oxygen
PAI—Primary Aircraft Inventory
PAX—Passenger
PBE—Protective Breathing Equipment
PCK—Protective Clothing Kit
PDM—Programmed Depot Maintenance
P/N—Part Number
POK—Passenger Oxygen Kits
SIOP—Single-Integrated Operational Plan
T.O.—Technical Order

UTC—Unit Type Code

Terms

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

Aircrew Life Support Equipment (ALSE)—ALSE encompasses all equipment (aircrew and passenger) part of the 412A aircrew life support system or as designated by this publication.

Contingency Mission—Mission required to support wartime contingencies and deployment operations.

Life Support Equipment (ALSE)—DELETED.

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

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

Primary Crewmember—Any person, rated or non-rated required on the aircraft to accomplish the flying mission.

Routine Mission—Mission required to support day-to-day peacetime operations.

Serviceable Storage—ALSE exceeding day-to-day mission requirements, but required for contingencies. Inspections will not exceed 12 months.

Attachment 2

DELETED.

Attachment 3

KC-10 AUXILIARY SURVIVAL KIT (ASK) COMPONENTS TABLE

Table A3.1. KC-10 AUXILIARY SURVIVAL KIT (ASK) COMPONENTS

Noun	Quantity
*Survival radio, PRC-series (w/spare battery)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	2 each
*Signal kit, personnel, distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-00-139-3671)	3 each
Survival kit (7-person life raft accessory container)	1 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	1 each
Knife, pocket	1 each
Stone, sharpening	1 each
Water, drinking, flexible package (FPDW) Or Water, drinking, canned	72 ounces Or 60 ounces
Desalinator, reverse osmosis, -35	1 each
Bag, water storage, 5-quart	1 each
Sponge, olive drab (NSN 7920-01-383-7936)	1 each
Bucket, bailing	1 each
Rations, survival, type ST	3 each
Repair kit, life raft, w/pliers	1 each
AFPAM 36-2246, <i>Aircrew Survival</i>	1 each
Packet, sea marker dye	1 each
Kit, fishing	1 each
Ointment, sunburn, preventive	7 each
Blanket, combat casualty (NSN 7210-00-935-6665)	3 each

Noun	Quantity
Cord, nylon, type I, 30-ft length	2 each
Hood, winter, wool	7 each

* - Minimum mandatory equipment (refer to paragraph 7).

Attachment 4

LIVE-ABOARD KIT (LAK) COMPONENTS TABLE

Table A4.1. LIVE-ABOARD KIT (LAK) COMPONENTS

Noun	Quantity
*Bag, sleeping (see note 1)	6 each
Repellent, insect	6 each
Ointment, sunburn, preventive (Pre-sun 15 may be used)	6 each
Hat, sun (large or X-large)	6 each
Cup, canteen	6 each
Stand, canteen	6 each

* - Minimum mandatory equipment (refer to paragraph 7).

NOTE:

Modular sleeping bag system (NSN 8465-01-395-1154) or equivalent. Units may substitute 6 each extreme cold weather sleeping bags (NSN 8465-01-033-8057) or 6 each sleeping bags, outer (Arctic) and 6 each sleeping bags, inner (Mountain) for the modular sleeping bag system. MC-1 sleeping bags are not authorized for use in LAKs.

Attachment 5

MINIMUM SURVIVAL KIT (MSK) COMPONENTS TABLE

Table A5.1. MINIMUM SURVIVAL KIT (MSK) COMPONENTS

Noun	Quantity
*Survival radio, PRC-series (w/spare battery)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	3 each
*Signal kit, personnel distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-00-139-3671)	1 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	2 each
Knife, pocket	1 each
Stone, sharpening	1 each
Water, drinking, flexible package (FPDW)	24 ounces
Bag, water storage, 5-quart.	2 each
AFPAM 36-2246, <i>AircrewSurvival</i>	1 each

* - Minimum mandatory equipment (refer to paragraph 7).

When the minimum survival kit is carried on commercial airlines, remove the following items IAW T.O. 00-20-1: Signal, smoke and illumination, MK-13 or MK-124; Signal kit, personnel distress, A/P 25S-5A; container, waterproof, with matches; and knife, pocket.

Attachment 6

T-9AF/LRU-14-SERIES LIFE RAFT ACCESSORY KIT COMPONENTS TABLE

Table A6.1. T-9AF/LRU-14-SERIES LIFE RAFT ACCESSORY KIT COMPONENTS

Noun	Quantity
*Survival Radio, PRC-series (w/spare battery)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	4 each
*Signal Kit, personnel distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-00-139-3671)	3 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	1 each
Knife, pocket	1 each
Water, drinking, flexible package (FPDW) Or Water, drinking, canned	56 ounces Or 50 ounces
Desalinator, reverse osmosis, -06	1 each
Bag, water storage, 5-quart	3 each
Sponge, olive drab (NSN 7920-01-383-7936)	1 each
Bucket, bailing	1 each
Rations, survival, general purpose (GP) Or survival type (ST)	3 each or 3 each
Repair kit, life raft, w/pliers	1 each
AFPAM 36-2246, <i>Aircrew Survival</i>	1 each
Packet, sea marker dye	1 each
Kit, fishing	1 each

Noun	Quantity
Ointment, sunburn, preventive	3 each
Blanket, combat casualty (NSN 7210-00-935-6665)	3 each
Cord, nylon, type I, 30-ft length	1 each
Stone, sharpening	1 each
6" x 6" plastic sheet	1 each
Tubing, latex, rubber, 6" length	1 each
Light, safety, cylume light stick	3 each
Pump, life raft (commercial - E.A.M.)	1 each
Canopy (commercial - E.A.M.)	1 each
Mast, canopy (commercial - E.A.M.)	1 each
Rods, canopy (commercial - E.A.M.)	5 each

* - Minimum mandatory equipment (refer to paragraph 7).

Attachment 7

SURVIVAL VEST COMPONENTS TABLE

Table A7.1. SURVIVAL VEST COMPONENTS

Noun	Quantity
*Survival radio, CSEL or PRC-series (w/spare battery) (see note 1)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	2 each
*Signal kit, personnel distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent, (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-01-120-2632)	1 each
Tourniquet	1 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	1 each
Knife, pocket	1 each
Water, drinking, flexible package (FPDW)	12 ounces
AFPAM 36-2246, <i>Aircrew Survival</i>	1 each
Hat, camouflage (large or extra-large)	1 each
Ointment, sunburn, preventive	1 each
Repellent, insect	1 each
Stick, camouflage	1 each

* - Minimum mandatory equipment (refer to paragraph 7). Secure components to the vest IAW T.O. 14S1-3-51.

- Combat Survivor Evader Locator (CSEL) radios will not be placed in equipment that will be permanently prepositioned aboard aircraft. Pockets on the survival vest may be relocated to ensure ALSE integration.
- When the survival vest is carried on commercial airlines, remove the following items IAW T.O. 00-20-1: Signal, smoke and illumination, MK-13 or MK-124; Signal kit, personnel distress, A/P 25S-5A; container, waterproof, with matches; and knife, pocket.

Attachment 8

ML-4 SURVIVAL KIT COMPONENTS TABLE

Table A8.1. ML-4 SURVIVAL KIT COMPONENTS

Noun	Quantity
*Life raft, one person	1 each
*Repair plug, life raft (w/pliers, 1 each)	2 each
Water, drinking, flexible package (FPDW)	12 ounces
Blanket, combat casualty (NSN 7210-00-935-6665)	1 each
Mittens, set, type N4B	1 pair
Bag, water storage, 3-pint	1 each
Sponge, olive drab (NSN 7920-01-383-7936)	1 each
Hood, winter, wool	1 each
Socks, wool (size 12 minimum)	1 pair
*Packet, sea marker dye	1 each
Desalinator, reverse osmosis, -06	1 each

* - Minimum mandatory equipment (refer to paragraph 7). Secure components to the kit container IAW T.O. 14S1-3-51.

Attachment 9

PROTECTIVE CLOTHING KIT (PCK) COMPONENTS

Noun	National Stock Number	Quantity
Apron	8415-00-634-5023	2 each
Gloves, Rubber	8415-00-266-8675	2 pair
Gloves, Aramid	8415-00-092-3910	1 pair
Shears, Metal Cutting	5110-00-092-3910	1 each
Absorbent Pads (see note 1)	Local Purchase	As required
Bags, Plastic	8105-00-848-9631	3 each
Tape, Masking, 1"	7510-00-266-6712	1 roll
Dustpan, Rubber	7290-00-616-0109	1 each
Broom, Whisk, 10"	7920-00-240-6350	1 each

NOTE:

- Coordinate with base environmental or fire department personnel to ensure the commercial product meets or exceeds the absorbency capacity equivalent to five pounds of vermiculite.
- Neutralizers for corrosive agents are not part of this kit.

Attachment 10**IC 2003-1 TO AFI 11-302, VOLUME 1*****MAINTENANCE AND CONFIGURATION REQUIREMENTS FOR AIRCREW AND AIRCRAFT-INSTALLED LIFE SUPPORT EQUIPMENT (LSE)******30 SEPTEMBER 2003*****SUMMARY OF REVISIONS**

This change converts AFI 11-302, Volume 1 to AFI 11-301, Volume 2, re-titles the publication, and transfers the OPR from HQ USAF/XOOP to HQ USAF/XOOT. It rescinds paragraph **3.10.1** through 3.10.6, and provides improved policy for equipping aeromedical evacuation (AE) crewmembers (AECM) during deployment operations. It establishes a new basis of issue (BOI) for AE crewmembers (**Table 11**), joins AE LSE with AE kits (UTC FFQDM) (paragraph **3.10.1**), identifies units to maintain AECM support kits (paragraph **3.10.2**), establishes Civil Reserve Air Fleet (CRAF) support kits (paragraph **3.10.4**), and identifies medical logistics contact information (paragraph **3.10.5** and **Table 13**). This change also deletes the requirement for MB-1 casualty life preserver units to be prepositioned aboard aircraft to accommodate patients, C-141 units to maintain 250 passenger (PAX) masks, and C-130 units to maintain 5 passenger oxygen kits (POK) for AE kits. See the last attachment of the publication, IC 2003-1, for the complete IC. A star (H) indicates revision from the previous edition.

OPR: HQ USAF/XOOT (CMSgt Richard T. Robichaud)

Supercedes: AFI 11-302, Vol 1, 1 October 1999

Certified By: HQ USAF/XOO (Brig Gen Teresa M. Peterson)

3.10.1. ALS units, when supporting AE missions and aircrew, will build and maintain the equipment listed in **Table 11**. The equipment will be placed in kits assigned to, and deployed with, an AE in-flight kit (UTC FFQDM). Each ALS unit supporting an AE squadron will maintain a minimum of 2 AE ALS kits (**Table 11**) for WRM. Exception: PACAF and USAFE ALS squadrons supporting AE operations will build and maintain eight (8) kits. Individual MAJCOMs will direct what units will maintain for local training and operational missions.

3.10.2. Travis, McGuire and Charleston AFBs will maintain the number of AECM support kits listed in **Table 12**. Seventy five percent (75%) of the total number of AECM support kits at each unit will be maintained ready at all times. If the AECM support kit capability goes below the 75% level, the unit will immediately notify HQ AMC/DOT in writing. The notification must include a detailed analysis of the problem and a projected get-well date.

3.10.3. Once built, MAJCOMs may authorize ALS sections maintaining AECM support kits to seal and place the kits in serviceable storage inspection status and inspect on an annual basis if time-change items' expiration dates permit. Upon notification of the need to deploy the AECM support kits, the ALS section will inspect the kit and place each item on a normal inspection cycle and deliver the kits to the designated organization within 24 hours.

Table 11. AECM SUPPORT KIT EQUIPMENT

AE EQUIPMENT	AECM SUPPORT KIT EQUIPMENT QTY
Mask, 358-series w/goggles Notes 1, 2	7
Survival Vest Note 3	7
Body Armor Note 3	7
Life Pres, LPU-10/P Note 4	7
Suit, Anti-Exposure, CWU-16/P Note 4, 5	7

NOTE:

1. Cabin/Cargo Area Aircrews will use the EPOS already prepositioned on the aircraft for emergency oxygen requirements for preplanned flights up to flight level 350 (FL350). For preplanned flights above FL350, all AE aircrew must have a quick-don mask with goggles attached (paragraph 3.11.1.) to a walk-around bottle available for use.
2. Medical crew director (MCD) and charge medical technician (CMT) must have communication capability in their quick-don mask.
3. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. The Air Ace™/Ace Advantage™ [Air Advantage™] (paragraph 4.) is the primary integrated survival vest and aircrew body armor for AE Squadron personnel. The SRU-21/P is also authorized (paragraph 4.3). AE Squadron personnel are authorized to request assigned equipment for unit training events.
4. Required for preplanned overwater flights only.
5. CWU-16/P or MAJCOM approved equivalent IAW T.O. 1-1-641.

Table 12. ALS AECM SUPPORT KIT HUB LOCATIONS

ALS AECM Support Kit Hub Locations	Authorized Number of Kits	75 Percent Level of Total Authorization
Travis AFB (60 OSS)	50	38
McGuire AFB (305 OSS)	50	38
Charleston AFB (437 OSS)	22	16

3.10.4. Civil Reserve Air Fleet (CRAF) Missions. All AE aircrews flying on CRAF aircraft are exempt from having to use the ALS equipment in **Table 11**, except for the 358-series quick-don mask. These masks are required for protection from smoke and fumes and emergency decompressions. Travis and Charleston AFBs will maintain twelve (12) and thirteen (13) kits respectively, containing seven (7) each LPU-6/P infant cot life preservers and eleven (11) each EPOS to support AE CRAF missions. These CRAF support kits will only be mobilized to support CRAF AE operations.

3.10.5. **Table 13** lists contact information for each hub location's medical logistics area controlling the medical portion of the FFQDM kit. Each ALS section at AE hub locations will contact and establish a local notification and delivery plan of the ALS portion of the kits to the medical logistics office (paragraph **3.10.3**). Once coordinated, forward the local plan to HQ AMC/DOTL and send an info copy to HQ USAF/XOOT. Include these plans in the next review or revision of the unit's operating instructions or local directives.

Table 13. MEDICAL LOGISTICS CONTACT INFORMATION

TRAVIS AFB	MCGUIRE AFB	CHARLESTON AFB
60 MDSS/SGSL 101 Bodin Circle (Bldg 777) Travis AFB CA 94535-1825	305 MDSS/SGSLW 3418 McGuire Road McGuire AFB NJ 08641	437 MDSS/SGSL 204 W. Hill Blvd (Bldg 364) Charleston AFB SC 29404-5300
DSN 779-7973/3962	DSN: 650-4818/6454/9313	DSN 673-6529/6527/6761
COMM: (707) 423-XXXX	COMM: (609) 754-XXXX	COMM: (843) 963-XXXX
FM4427	FM4484	FM4418
POC Position: NCOIC WRM	POC Position: NCOIC WRM	POC Position: NCOIC WRM

Attachment 11

INTERIM CHANGE 2006-1 TO AFI 11-301, VOLUME 2

1 MAY 2006

***MAINTENANCE AND CONFIGURATION
REQUIREMENTS FOR MOBILITY AIR FORCES (MAF)
AIRCREW AND AIRCRAFT-INSTALLED AIRCREW
LIFE SUPPORT EQUIPMENT (ALSE)***

OPR: HQ USAF/A3OT (CMSgt Richard T. Robichaud)

Supercedes: AFI 11-301, Vol 2, 30 September 2003

Certified By: HQ USAF/A3O (Brig Gen William L. Holland)

This volume implements Air Force Policy Directive (AFPD) 11-3, *Life Support*, and Air Force Instruction (AFI) 11-301, Volume 1, *Aircrew Life Support (ALS) Program*. This volume prescribes policy and incorporates the intent of AFPD 10-9, *Lead Operating Command Weapon Systems Management*. It establishes Air Force standards and defines maintenance and configuration requirements for Mobility Air Forces (MAF) mission design series (MDS), which Headquarters Air Mobility Command (HQ AMC) is the lead command of and maintains configuration control over IAW AFI 63-1201, *Assurance Of Operational Safety, Suitability, & Effectiveness*. It clarifies and standardizes minimum essential quantities of prepositioned aircrew life support equipment (ALSE) by aircraft type and configuration requirements not otherwise specified for using commands. This publication applies to the Air National Guard (ANG) when published in the ANG IND 2. Refer recommended changes and conflicts between this and other publications through appropriate channels in accordance with (IAW) AFI 33-360, Volume 1, *Publications Management Program*, on Air Force (AF) Form 847, **Recommendation for Change of Publication**. Intervening levels will evaluate all recommendations and forward the AF Form 847 to the next echelon through the lead command before forwarding to Air Staff. **Records Disposition**. Maintain and dispose of all records created as a result of processes prescribed in this publication IAW AFMAN 37-139, *Daily Records Disposition Schedule*. This instruction is affected by the Paperwork Reduction Act as amended in 1996. This instruction contains references to field (subordinate level) publications and forms, which will be converted to departmental-level publications and forms and may be obtained from the respective MAJCOM publications office. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF REVISIONS

This revision incorporates interim change (IC) 2006-1. This change re-titles the publication and updates aircraft configuration tables for C-5 (**Table 1**), C-17 (**Table 2**), C-130 (**Table 4**), C-141 (**Table 5**), KC-10 (**Table 6**), C/KC-135 (**Table 7**), C-9 (**Table 8**), C-20 (**Table 9**) and C-21 (**Table 10**), and the applicable notes. The equipment quantities have been adjusted to meet maximum combat crew and passenger protection, and programmed depot maintenance

requirements. MB-1 life preservers were removed from all aircraft tables in accordance with IC 2003-1. It deletes information relevant to C-27 aircraft (paragraphs **3.3** through **3.3.4**, **3.15.1**, **4.1**, **Table 3** and **Attachment 2**), requirement for C-5 and C-141 units without an airdrop mission to maintain parachutes and life preserver units for Air Force's "GLOBAL ENGAGEMENT" mission (paragraph **3.1.2** and **3.5.2**). It updates paragraphs **1**, **2.1**, **2.2.9**, **3**, **3.1.1**, **3.2.1**, **3.4.1**, **3.4.3**, **3.5.1**, **3.6.1**, **3.7.1**, **3.7.2**, **3.7.3.1**, **3.8.1**, **3.8.2**, **3.8.3**, **3.12**, **3.14**, **10.2**, **10.3**; adds oxygen mask inspection procedures (paragraph **3.11.6** and authorizes use of Air Cruisers Company 9-person life raft (paragraph **3.12.1**) and Multifab Survival Limited anti-exposure suit (paragraph **6.3**); clarifies guidance on use of protective breathing equipment (paragraph **3.14.1**). See the last attachment of the publication, IC 2006-1, for the complete IC. A star (*) indicates revision from the previous edition.

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Section C ALSE MAINTENANCE AND CONFIGURATION REQUIREMENTS

3. Aircraft-Installed ALSE Procedures

Table 1. C-5 AIRCRAFT ALSE CONFIGURATION

Table 2. C-17 AIRCRAFT ALSE CONFIGURATION

Table 3. DELETED.

Table 4. C-130 AIRCRAFT ALSE CONFIGURATION

Table 5. C-141 AIRCRAFT ALSE CONFIGURATION

Table 6. KC-10 AIRCRAFT ALSE CONFIGURATION

Table 7. C/KC-135 AIRCRAFT ALSE CONFIGURATION

Table 8. C-9 AIRCRAFT ALSE CONFIGURATION

Table 9. C-20 AIRCRAFT ALSE CONFIGURATION

Table 10. C-21 AIRCRAFT ALSE CONFIGURATION

4. Survival Vest and Body Armor:

13. Prescribed Forms.

Attachment 2. DELETED.

Attachment 9— PROTECTIVE CLOTHING KIT (PCK) COMPONENTS TABLE

1. General. This volume specifies minimum ALSE to configure C-5, C-9, C-17, C-20, C-21, C-130, C-141, KC-10, and C/KC-135 aircraft and is to be used in conjunction with other MDS configuration publications and applicable technical orders (T.O.). HQ AMC serves as lead command for this publication, as well as aircraft, aircrew, and passenger aircrew life support (ALS) systems related to these MDSs, and ensures the operational safety, suitability, and effectiveness (OSS&E) baselines are preserved IAW AFI 65-1201. It is also understood the using activity will assume OSS&E responsibility for commercial products used on aircraft IAW AFI 65-1201.

1.1. **Supplements.** Major Commands (MAJCOM) with these or similar types of MDS aircraft will supplement this publication to meet their specific mission requirements and identify equipment inspection and maintenance frequencies, as required IAW AFI 33-360, Volume 1. Due to Air Education and Training Command (AETC), Air Force Materiel Command (AFMC), and Air Force Special Operations Command (AFSOC) mission, HQ AETC/DOYL, HQ AFMC/A3V, and HQ AFSOC/A3TL will establish requirements to meet mission needs and is authorized to determine unique requirements for assigned aircraft.

2.1. **Commanders.** Ensure all crewmembers and passengers wear or have access to the appropriate ALSE for the route of flight and duration of the mission. Commercially procured items are not authorized for use without prior approval or safe-to-fly recommendation by the respective ALSE Single Manager and MAJCOM ALS office of primary responsibility IAW AFI 11-301, Volume 1.

2.2.2. Store, handle, service, and account for items part of the 412A aircrew life support system.

2.2.3. Ensure all ALSE inspections remain current throughout the scheduled mission duration. Ensure aircraft ALSE will have a minimum of 60 days remaining on its current repack and inspection when departing home-station for tanker task force operations, integrated tanker unit deployments (ITUD), and 30 days for channel missions, business efforts, aircraft transfers, etc. Transfer aircraft IAW T.O. 00-20-1, *Preventive Maintenance Program General Policy Requirements and Procedures*.

2.2.7. Maintain applicable flight simulator ALSE. MAJCOMs will specify frequency and procurement procedures as agreed upon.

2.2.8. Permanently preposition ALSE to the maximum extent possible at all times to provide mission flexibility, especially when aircraft is away from home-station. This will reduce excessive handling and damage of ALSE. Prepare AFTO Form 46, **Prepositioned Life Support Equipment** in duplicate. Maintain a file of the original and completed AFTO Forms 46 by aircraft tail number for all assigned aircraft for historical purposes.

2.2.9. ALS personnel are not responsible for storing, handling, servicing, or accountability of the following items: thermos jugs, fire extinguishers, aircraft portable O2 cylinders, pre-breather O2 assemblies, aircraft oxygen regulators, groundcrew headsets, flak helmets, flak vests, groundcrew chemical defense equipment, pyrotechnic flare pistols, E-and-E kits, passenger service equipment, aircraft escape slides, aircraft first aid kits, hand sanitizers, aircraft night vision goggle lighting components, groundcrew night vision devices, rear vision devices, Emergency Vision Assurance Systems (EVAS), medications (including “go pills”), aircrew tool kits, luggage or baggage loading equipment, non-ALS support equipment, or items not related to the 412A aircrew life support system.

2.2.10. ALS personnel are only responsible for aircrew active noise reduction (ANR) headsets or aircrew helmet noise reduction (AHNR) systems approved by Single Managers. MAJCOMs will establish standardized accountability procedures to issue, store, and maintain ANR headsets

IAW T.O. 12R2-4-321-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown for Headset Assembly PRU-57(V)2/P*, to support assigned MDS-series aircraft.

2.2.11. MAJCOMs authorizing use of Commercial Off-the-Shelf (COTS) items unrelated to the 412A aircrew life support system, will ensure technical order guidance or commercial manuals are provided to units to assure COTS items are properly maintained IAW AFI 63-1201.

Section C—ALSE MAINTENANCE AND CONFIGURATION REQUIREMENTS

3. Aircraft-Installed ALSE Procedures. ALSE must be handled with care to avoid damage to this life sustaining equipment. Prepositioning equipment IAW this publication allows flexibility while the aircraft is away from home-station and standardizes ALSE configurations Air Force-wide. The applicable MDS configuration tables within this publication establish minimum equipment requirements. In AETC flying units where AMC is the lead command, units are authorized to load aircraft with only the ALSE required to meet mission requirements. Additionally, AETC Operations Group Commanders (or equivalent) will ensure an operational risk management assessment is accomplished regarding utilization of ALSE to safely support mission requirements. In the event installed ALSE comes due while the aircraft is on alert status or away from home-station, place these items on a red dash until the aircraft goes off alert or returns to home-station. When aircraft is removed from alert status or returns to home-station, upgrade to a red X, keeping within the provisions of T.O. 00-20-1.

3.1. C-5 ALSE:

3.1.1. Configure aircraft IAW AFI 11-2C-5, Volume 3, Addenda A, *C-5 Operations Configuration and Mission Planning* and T.O. 1C-5A-1, *Flight Manual, USAF Series, C-5A and C-5B Airplanes*. Aircraft commanders (AC) may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.1.2. DELETED.

Table 1. C-5 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7, 8)	Permanent- Transfer (see note 8)
Mask, 358-series w/goggles	7	7	5	7
Mask, Firefighter, Smoke (see note 1)	14	14	0	14
Mask, AWACS (MBU-12/P or -5/P)	6	6	0	6
Protective Breathing Equipment (PBE)	8	8	5	8

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7, 8)	Permanent- Transfer (see note 8)
Mask, Passenger (PAX) Oxygen	101	101	0	101
Emergency PAX Oxygen System (EPOS) (see note 2)	100	100	0	100
Kit, Protective Clothing (PCK)	2	2	0	2
Harness, Restraint, PCU-17/P	3	3	1	3
Parachute, BA-22 (see note 3)	As Required	As Required	0	0
Life Raft, 25-Person (see note 7)	4	4	0	4
Life Preserver, Adult-Child (A/C) (see note 4)	100	100	0	100
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Life Preserver, LPU-10/P (see note 5, 7)	10	10	0	10
Vest, Survival (see note 6)	10	10	0	10
Vest, Aircrew Body Armor (Level IIIA)	10	10	0	10
Suit, Anti-Exposure, CWU-16/P (see note 7, 9)	10	10	0	10
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

3. Add parachutes as required by other configuration publications.

4. The A/C is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.

5. The LPU-10/P LPU is required to integrate with ALSE and is designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for this LPU.

6. Survival Vests are required when parachutes are prepositioned aboard aircraft. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.

7. Aircraft flying overwater to Programmed Depot Maintenance (PDM) will load one 25-person life raft, five LPU-10/Ps, and five anti-exposure suits to support crewmembers, as required.

8. For all aircraft transfers, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, to include PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. Gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment installed.

9. Units are authorized to use the Multifab Survival Limited (MSL) quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.2. C-17 ALSE:

3.2.1. Configure aircraft IAW AFI 11-2C-17, Volume 3, Addenda A, *C-17 Configuration and Mission Planning* and T.O. 1C-17A-1, *Flight Manual, USAF Series, C-17A Aircraft*. Store ALSE not being used in the survival equipment locker located forward and left of the crew entrance door. Suspend parachutes from bar with ML-4 survival kits attached to parachute buckles. ALSE is the only equipment authorized for storage in the C-17 equipment locker. Store personnel restraint harnesses in the right side drawer under the forward loadmaster station. Crewmembers should return all ALSE to storage positions after mission completion. Place EPOS in the under-the-seat pouches per mission directives. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 2. C-17 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM In put (see note 7)	Permanent- Transfer(see note 8)
Mask, 358-series w/goggles	15	15	3	15
Protective Breathing Equipment (PBE)	6	6	3	6
Mask, Passenger (PAX) Oxygen (see note 1)	74	74	74	74

Minimum Required Equipment	Routine	Contingency	PDM In put (see note 7)	Permanent- Transfer(see note 8)
Emergency Passenger Oxygen System (EPOS) (see note 2)	110	110	0	110
Aeromedical Utility Panel Oxygen Mask (see note 3)	12	12	0	12
Kit, Protective Clothing (PCK)	1	1	0	1
Harness, Restraint, PCU-17/P	3	3	1	3
Parachute, BA-22 (see note 4)	7	7	0	7
Life Raft, 46-Person	3	3	3	3
Life Preserver, Adult-Child (A/C)	110	110	0	110
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Life Preserver, LPU-10/P (see note 5, 7)	7	7	0	7
Kit, Survival, ML-4	7	7	0	7
Vest, Survival (see note 6)	7	7	0	7
Vest, Aircrew Body Armor (Level IIIA)	7	7	0	7
Suit, Anti-Exposure, CWU-16/P (see note 7, 9)	7	7	0	7
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

5. LPU-10/P LPU is required to integrate with ALSE and is designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for this LPU.

6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.

7. Aircraft flying overwater to PDM will load three LPU-10/P LPUs and three anti-exposure suits to support crewmembers, as required.

8. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.

9. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.3. DELETED.

3.3.1. DELETED.

3.3.2. DELETED.

3.3. DELETED.

3.3.4. DELETED.

Table 3. DELETED.

3.4. C-130 ALSE:

3.4.1. Preposition ALSE in locations determined by AFI 11-2C-130, Volume 3, Addenda A, *C-130 Operations Configuration/Mission Planning* and T.O. 1C-130B-1, T.O. 1C-130H-1, T.O. 1C-130(K)H-1, and T.O. 1C-130(L)H-1, *Flight Manual, USAF Series, C-130 Aircraft*.

3.4.2. When equipment racks are installed, all ALSE except parachutes and attached ML-4 survival kits will be stored on the ALSE racks.

3.4.3. Attach ML-4 survival kits to parachute buckles. ACs may direct repositioning of ALSE based on mission requirements; however, ALSE must be readily accessible for bailout. Crewmembers should return parachutes, kits, and ALSE to their primary position after mission completion. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 4. C-130 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 10)	Permanent Transfer (see note 11)
Mask, 358-series w/goggles	4	4	4	4
Mask, Firefighter, Smoke (see note 1)	2	2	2	2
Protective Breathing Equipment (PBE) (see note 2)	6	6	6	6
Emergency Passenger Oxygen System (EPOS) (see note 3)	100	100	0	100
Kit, Protective Clothing (PCK)	1	1	0	1
Harness, Restraint, PCU-17/P	3	3	2	3
Parachute, BA-22 (see note 4)	6	6	0	6
Life Raft, 20-Person, F-2B	4	4	0	4
Life Preserver, Adult-Child (A/C) (see note 5)	80	80	0	80
Life Preserver, LPU-6/P (Infant)	4	4	0	4
Life Preserver, LPU-10/P (see note 6)	6	6	0	6
Kit, Survival, ML-4 (see note 4, 7)	6	6	0	6
Vest, Survival (see note 4, 8)	6	6	0	6
Vest, Aircrew Body Armor (Level IIIA)	6	6	0	6
Suit, Anti-Exposure, CWU-16/P (see note 4, 9, 12)	6	6	0	6
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

2. Four PBEs will be placed on the flight deck and two in the cargo compartment.

3 EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS for increased scheduled PAX loads. POKs may be used as a substitute until EPOS is available; however, mixing of EPOS and POKs on the same aircraft is not authorized. If POKs are used, provide one POK for each occupant IAW AFI 11-202, Volume 3, *General Flight Rules*. EPOS or POKs are not required when flying local training missions and passengers are not aboard aircraft.

5. The A/C LPU is the preferred LPU. Preposition additional LPUs to meet increased scheduled PAX loads. As a minimum, each aircraft will have one LPU for each passenger. LPU-10/P LPUs are a suitable substitute for the A/C LPU for passenger use until A/C LPUs are available. If LPU-10/P LPUs are used, AC or designated aircrew representative will ensure these LPUs are pre-fitted to passengers prior to take off.

6. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.

8. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.

10. Aircraft flying overwater to PDM will load one 20-person life raft, five LPU-10/P LPUs, and five anti-exposure suits to support crewmembers, as required.

11. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.

12. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.5. C-141 ALSE:

3.5.1. Configure aircraft and position PAX masks for each aircraft configuration IAW AFI 11-2C-141, Volume 3, Addenda A, *C-141 Operations Configuration/Mission Planning*, and T.O. 1C-141B-1, *Flight Manual, USAF Series, C-141 Aircraft*. Configure each C-141 with an applicable number of PAX masks as missions dictate. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required.

However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.5.2. DELETED.

Table 5. C-141 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 8)	Permanent Transfer
Mask, 358-series w/goggles	8	8	4	8
Mask, Firefighter, Smoke (see note 1)	2	2	0	2
Mask, AWACS (MBU-12/P or -5/P) (see note 1)	5	5	0	5
Protective Breathing Equipment (PBE)	4	4	4	4
Mask, Passenger (PAX) Oxygen (see note 2)	150	150	0	150
Emergency Passenger Oxygen System (EPOS) (see note 3)	150	150	0	150
Kit, Protective Clothing (PCK)	1	1	0	1
Harness, Restraint, PCU-17/P	2	2	1	2
Parachute, BA-22 (see note 4)	As Required	As Required	0	0
Life Raft, 20-Person, F-2B	6	6	0	6
Life Preserver, Adult-Child (A/C) (see note 5)	160	160	0	160
Life Preserver, LPU-10/P (see note 6)	As Required	6	0	0
Life Preserver, LPU-6/P (Infant)	7	7	0	7
Vest, Survival (see note 7)	As Required	6	0	6
Vest, Aircrew Body Armor (Level IIIA)	0	6	0	6
Suit, Anti-Exposure, CWU-16/P (see note 9)	6	6	0	6
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

4. Add parachutes as required by other configuration publications.

5. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.

6. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.

7. Survival vests are required when parachutes are prepositioned aboard aircraft for bailout. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.

9. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.6. KC-10 ALSE:

3.6.1. Configure aircraft IAW AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures* and T.O. 1C-10(K)A-1, *Flight Manual, USAF Series, KC-10A Aircraft*. ALSE is contractor operated and maintained base supply (COMBS) provided and ALS maintained. Responsibilities are as followed:

3.6.1.2. Each KC-10 ALS shop will maintain a minimum of five 7-person life rafts for the 25- and 27-pallet configuration (Code E).

3.6.1.3. Each KC-10 ALS shop will build up one auxiliary survival kit (ASK) for installation on each assigned aircraft. To assemble this kit, line a 7-person accessory kit with 1-inch Etha Foam, ensuring it will float and pack with survival components (see **Attachment 3**). Document inspections on applicable AFTO Forms and attach a DD Form 1574, **Serviceable Tag -- Materiel**, to each kit annotating date inspected and date due next inspection, and ensure the time-change information is annotated on the reverse side of tag. Stencil each ASK with 1-inch black letters to read as follows:

AUXILIARY SURVIVAL KIT, KC-10
SURVIVAL COMPONENTS INSIDE

3.6.3. The aircraft ALSE compartments are restricted to storing anti-exposure suits, infant cots, O2 masks' six foot hose and cable assemblies, a 7-person life raft, survival vests, aircrew body armor, MIL-G-635 goggles, and an ASK. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 6. KC-10 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input	Permanent-Transfer (see note 8)
Mask, 358-series w/goggles	16	16	10	16
Protective Breathing Equipment (PBE)	2	2	2	2
Hose, 6-Ft. w/cable assemblies	4	4	0	4
Emergency Passenger Oxygen System (EPOS) (see note 1)	24	As Required	(see note 1)	24
Kit, Protective Clothing (PCK)	1	1	0	1
Goggle, Flash Blindness, MIL-G-635	3	3	0	3
Life Raft, 7-Person, LRU-1/P (see note 2)	As Required	As Required	0	0
Life Preserver, Adult-Child (A/C) (see note 3)	21	As Required	0	21
Life Preserver, LPU-6/P (Infant) (see note 4)	4	4	0	4
Life Preserver, LPU-10/P (see note 5)	4	4	0	4
Kit, Auxiliary Survival (ASK)	1	1	0	1
Vest, Survival (see note 6)	4	4	0	4
Vest, Aircrew Body Armor (Level IIIA)	4	4	0	4
Suit, Anti-Exposure, CWU-16/P (see note 8)	4	4	0	4
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

1. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for individual accommodation kit (IAK) configurations, as required. Preposition one EPOS per maintenance personnel during PDM input.
3. Preposition additional LPUs for IAKs configurations, as required. As a minimum, each aircraft will have one LPU for each crewmember and passenger. For IAK configuration, preposition 80 LPUs.
4. Maintain 4 ea. per IAK or the capability to configure 50% of PAI, whichever is greater.
5. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.
7. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferred aircraft, including PDM aircraft, will contact the losing organization's ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM IAW T.O. 00-20-1. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.
8. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.7. C/KC-135 ALSE:

3.7.1. Configure aircraft IAW AFI 11-2KC-135, Volume 3, Addenda A, *C/KC-135 Aircraft Configuration*, T.O. 1C-135(K)R-1, *Flight Manual, USAF Series, KC-135R Aircraft*, and T.O. 1C-135(K)E(II)-1, *Flight Manual, USAF Series, KC-135E Aircraft*.

3.7.2. Attach survival kits to parachute buckles and hang in the rear of the aircraft. ACs may direct repositioning of ALSE based on mission requirements; however, ALSE must be readily accessible for bailout. Crewmembers should return parachutes, kits, and ALSE to their primary position after mission completion. ACs may request additional equipment be positioned aboard

aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

3.7.3.1. Units will establish aircraft live-aboard capability consisting of live-aboard kits (LAK), 3 cases of cold weather (CW) or 4 cases of meal-ready-to-eat rations and 1,800 ounces of water as a minimum IAW AMCI 10-450, Volume 3, *Aircraft Performance Factors* (classified). This will allow aircrew to reside on the aircraft for a minimum of three days at forward operating locations in support of OPLAN 8044. LAK components are listed in this publication (see **Attachment 4**). Not applicable to AETC and AFMC.

3.7.3.2. Each organization (supporting OPLAN 8044) will have sufficient LAKs (plus spares) for all PAI aircraft. ALS will build LAKs using A-3 bags, A-21 canvas containers, or equivalent. Inner containers should be assembled with rigid reinforced fiberboard boxes or equivalent. Inspect kits and contents annually. Document AFTO Form 338, **Survival Kit Record**, as required. Attach a DD Form 1574 to the A-3 bags or A-21 canvas containers, annotating date inspected and date due next inspection.

3.7.3.3. Requirements for subsistence items are shared responsibilities among ALS (delivery, uploading, and downloading), Operations and Plans (quantify as per mission needs), and Services (commissary liaison, approval agency, and memorandum of understanding [MOU]). Representatives from these organizations will establish a MOU. The MOU will specify and define responsibilities for forecasting, funding, requisitioning, storing, and issuing rations to best meet the wing's mission. Responsibilities for subsistence rations and water are contained in AFI 25-101, *War Reserve Material (WRM) Program Guidance and Procedures*. Due to the lack of proper refrigerated storage facilities within ALS facilities, some rations will require courtesy storage at appropriate facilities.

Table 7. C/KC-135 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency / Tanker-Task-Force	OPLAN 8044 (see note 9)	PDM Input (see note 10)	Permanent-Transfer (see note 11)
Mask, 358-series w/goggles	4	4	4	4	4
Mask, Firefighter, Smoke (see note 1)	2	2	2	2	2
Protective Breathing Equipment (PBE)	2	2	2	2	2
Emergency Passenger Oxygen System (EPOS) (see note 2)	22	66	22	0	66

Minimum Required Equipment	Routine	Contingency / Tanker-Task-Force	OPLAN 8044 (see note 9)	PDM Input (see note 10)	Permanent-Transfer (see note 11)
Kit, Protective Clothing (PCK)	1	1	1	0	1
Goggle, Flash Blindness, EEU-series (see note 3)	0	3	3	0	3
Parachute, BA-22	4	4	4	0	4
Restraint Harness, PCU-17/P (see note 6)	1	1	1	1	1
Life Raft, 20-Person, F-2B	1	3	1	0	3
Life Preserver, Adult-Child (A/C) (see note 4)	20	60	20	0	60
Life Preserver, LPU-6/P (Infant)	5	5	5	0	5
Life Preserver, LPU-10/P (see note 5)	4	4	4	0	4
Kit, Survival, ML-4	4	4	4	0	4
Vest, Survival (see note 7)	4	4	4	0	4
Vest, Aircrew Body Armor (Level IIIA)	4	4	4	0	4
Kit, Live-Aboard (LAK) (see note 8)	0	0	1	0	1
Suit, Anti-Exposure, CWU-16/P (see note 12)	4	4	4	0	4
Kit, Minimum Survival (MSK)	0	0	0	1	0
Kit, Passenger Demonstration	1	1	1	0	1

NOTES:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. However, firefighters smoke mask will be used until 358-series oxygen masks and goggles and PBEs are updated in T.O. 1C-135A-6, *Aircraft Scheduled Inspections and Maintenance Requirements*.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS for increased scheduled PAX loads. POKs may be used as a substitute until EPOS is available; however, mixing of EPOS and POKs on the same aircraft is not authorized. If POKs are used, provide one POK for each occupant IAW AFI 11-202, Volume 3. Preposition one EPOS or POK per maintenance personnel during PDM input.
3. MIL-G-635 goggles will be uploaded as sets, and placed above the NAV table, to back-fill for missing or defective sets of EEU-series goggles.
4. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.
5. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs. Altus AFB is only required to preposition LPU-10/P LPUs during routine trainer missions.
6. The restraint harness is only required for aircraft hatch inspections when parachutes are not onboard.
7. Survival vests provide crewmembers the necessary survival items on the ground while waiting for rescue or return to duty. Quantities will match number of parachutes aboard aircraft.
8. LAKs are not required to be uploaded on aircraft when OPLAN 8044 crews are issued "A" and "B" mobility bags during processing.
10. Aircraft flying overwater to PDM will load one 20-person life raft, four LPU-10/P LPUs, and four anti-exposure suits to support crewmembers, as required.
11. For inter- and intra-command transfer of aircraft, position ALSE on each aircraft IAW permanent transfer configuration. Units gaining transferring aircraft, including PDM aircraft, will contact the losing organization ALS section and initiate transfer of required aircraft-installed ALSE and inspection records. The gaining ALS organization will conduct an aircraft acceptance

inspection and forward a copy of discrepancies, to include any equipment shortages, to their respective MAJCOM in accordance with T.O. 00-20-1, section V. Do not transfer aircraft with less than the required equipment. The losing organization will make up any necessary shortages from on-hand assets to ensure transferring aircraft has required equipment.

12. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.8.1. Configure C-9 aircraft IAW AFI 11-2C-9, Volume 3, *C-9 Operations Procedures* and T.O. 1C-9A-1, *Flight Manual, USAF Series, C-9A Aircraft*. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS). The minimum survival kit (MSK) components for C-9 aircraft are listed in this publication (see **Attachment 5**).

Table 8. C-9 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 7)	Permanent- Transfer
Mask, 358-series w/goggles	3	3	3	3
Mask, Firefighter, Smoke (see note 1)	1	1	0	1
Mask, AWACS (MBU-12/P or -5/P) (see note 2)	5	5	0	5
Protective Breathing Equipment (PBE)	8	8	3	8
Mask, Passenger Oxygen (PAX)	67	67	67	67
Emergency Passenger Oxygen System (EPOS) (see note 3)	50	50	0	50
Harness, Restraint, PCU-17/P	1	1	1	1
Life Raft, 20-Person, F-2B	3	3	0	3
Life Preserver, Adult-Child (A/C) (see note 4)	50	50	0	50
Life Preserver, LPU-6/P (Infant)	5	5	0	5
Life Preserver, LPU-10/P (see note 5)	0	8	0	8
Vest, Survival (see note 6)	0	8	0	8
Vest, Aircrew Body Armor (Level IIIA)	0	8	0	8
Suit, Anti-Exposure, CWU-16/P (see note 8)	8	8	0	8

Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

4. The A/C LPU is the preferred LPU for passengers. As a minimum, each aircraft will have one LPU for each passenger.

5. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.

7. Aircraft flying overwater to PDM will load one 20-person life raft, three LPU-10/P LPUs, and three anti-exposure suits to support crewmembers, as required.

8. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.8.2. Configure C-20 aircraft IAW AFI 11-2SAM/CSM, Volume 3, *Special Air Missions (SAM) Command Support Mission (CSM) Operations Procedures* and T.O. 1C-20A-1, *Flight Manual, USAF Series, C-20A Aircraft*. ALSE installed on C-20 aircraft is COMBS provided. ALS assists in the maintenance of equipment. ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 9. C-20 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 3)	Permanent- Transfer
Mask, EROS, w/goggles	3	3	3	3
Mask, Firefighter, Smoke (see note 1)	2	2	0	2
Protective Breathing Equipment (PBE)	2	2	2	2
Mask, Passenger Oxygen (PAX)	20	20	20	20
Emergency Passenger Oxygen System (EPOS) (see note 2)	19	19	0	19
Life Raft, 7- or 9-person	3	3	0	3
Life Preserver, Adult-Child (A/C)	19	19	0	19

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 3)	Permanent- Transfer
Suit, Anti-Exposure, CWU-16/P (see note 4)	3	3	0	3
Kit, Minimum Survival (MSK)	0	0	1	0
Kit, Passenger Demonstration	1	1	0	1

NOTES:

3. Aircraft flying overwater to PDM will load one life raft, three LPU-10/P LPUs, and three anti-exposure suits to support crewmembers, as required.

4. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.8.3. Configure C-21 aircraft IAW AFI 11-2C-21, Volume 3, *C-21 Operations Procedures* and T.O. 1C-21A-1, *USAF Model, C-21A Aircraft Flight Manual*. ALS will maintain sufficient quantities of life rafts for C-21 aircraft to satisfy contingency requirements based on unit type codes (UTC) and to support overwater flights. Non-mobility units will maintain at least one T-9AF or LRU-14-series life raft for contingency purposes. T-9AF and LRU-14-series life raft accessory components are listed in this publication (see **Attachment 6**). The MSK components for C-21 aircraft are listed in this publication (see **Attachment 5**). ACs may request additional equipment be positioned aboard aircraft to accommodate aircrew and passenger increases, as required. However, units will ensure they do not exceed their total equipment authorizations per applicable allowance standards (AS).

Table 10. C-21 AIRCRAFT ALSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 5)	Permanent- Transfer
Mask, 359-series w/goggles	2	2	2	2
Protective Breathing Equipment (PBE)	2	2	2	2
Mask, Passenger (PAX) Oxygen	11	11	11	11
Emergency Passenger Oxygen System (EPOS) (see note 1)	8	8	0	8
Life Raft, T-9AF/LRU-14-series (see note 2)	0	1	0	1
Life Preserver, Adult-Child (A/C)	10	10	0	10

Minimum Required Equipment	Routine	Contingency	PDM Input (see note 5)	Permanent- Transfer
Life Preserver, LPU-10/P (see note 3)	0	2	0	2
Vest, Survival (see note 4)	0	2	0	2
Vest, Aircrew Body Armor (Level IIIA)	0	2	0	2
Suit, Anti-Exposure, CWU-16/P (see note 6)	As Required	2	0	2
Kit, Minimum Survival (MSK)	1	1	1	1
Kit, Passenger Demonstration	1	1	0	1

NOTES:

2. Units are authorized to use the Air Cruisers Company AC-9 (9-person) life raft as a substitute for the T-9AF or LRU-14-series life rafts.

3. LPU-10/P LPUs are required to integrate with ALSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.

4. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.

5. Aircraft flying overwater to PDM will load one life raft, two LPU-10/P LPUs, and two anti-exposure suits to support crewmembers, as required.

6. Units are authorized to use the MSL quick-don anti-exposure suit as a substitute for the CWU-16/P.

3.9. **VIP Special Air Missions (VIPSAM) ALSE.** Due to the unique mission and limited assets of the VIPSAM operations and other unique missions, each MAJCOM ALS staff is responsible for supplementing this publication with requirements relevant to their respective units. Each VIPSAM unit will provide their respective MAJCOM with an aircraft ALSE configuration table for each MDS assigned.

3.10.5. **Table 13** lists contact information for each hub location's medical logistics area controlling the medical portion of the FFQDM kit. Each ALS section at AE hub locations will

contact and establish a local notification and delivery plan of the ALS portion of the kits to the medical logistics office (paragraph 3.10.3). Once coordinated, forward the local plan to HQ AMC/DOTL and send an info copy to HQ USAF/A3OT. Include these plans in the next review or revision of the unit's operating instructions or local directives.

3.11.6. Conduct routine inspections of aircraft-installed aircrew oxygen masks (i.e., 358-series, 359-series, AWACS, etc.) on 30-day intervals. Complete disassembly and cleaning inspections are accomplished every 90-days. MAJCOMs should continue to emphasize oxygen mask cleanliness and serviceability during postflight, mission termination and routine 30-day mask inspections. **EXCEPTION:** Firefighter smoke masks are inspected at intervals IAW T.O. 15X5-5-3-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown Fire Fighters and Oxygen Smoke Mask Assemblies*.

3.12. Life Rafts:

3.12.1. Position sufficient types of life rafts aboard each aircraft on overwater flights to accommodate all aircrew and passengers IAW T.O. 14S3-1-3, *Type and Number of Individual Survival Kit Containers and Life Rafts To Be Used In Various Type Aircraft*, and applicable MDS configuration tables. Place additional life rafts aboard aircraft when required. Ensure a DD Form 1574 is attached to each aircraft life raft and aircraft actuation handles for life rafts installed in wing well, silos, etc. Ensure the time-change information is annotated on the reverse side of tag IAW T.O. 14S-1-102. C-141 units will maintain additional life rafts IAW the allowance standard (AS 016) for contingencies.

3.12.2. The Air Cruisers Company AC-9 (9-person) life raft received a safe-to-fly recommendation from the ALSE Single Manager. Units are authorized to use the AC-9 as a substitute for the T-9AF or LRU-14-series life rafts.

3.13.1. The A/C LPU is the preferred LPU for aircrew and passengers during normal ditching situations. Units should pursue replacement of LPU-10/P LPUs for passenger use. The A/C LPU does not require pre-fitting prior to flight and is easier to don during emergency situations. As a minimum, each aircraft will have one LPU for each passenger during overwater flights. C-141 units will maintain additional LPUs IAW AS 016 for contingencies.

3.13.2. The LPU-10/P LPUs are required and are designed to integrate with ALSE. Crewmembers wearing parachutes, survival vests, anti-exposure suits, and aircrew chemical defense equipment must use these LPUs during bailout or ditching. A/C LPUs are not compatible for use with ALSE and must not be used as a substitute for these LPUs.

3.14. **Protective Breathing Equipment (PBE).** Units will utilize PBEs, P/N 802300-14, with the fire retardant polyethylene (green) storage container, P/N 803753-01, and neoprene neck seal. PBE P/N 802300-14 is considered the primary device. Units may still utilize Emergency Escape Breathing Devices (EEBD), P/N 802300-11, until item's service-life expires. Units will not substitute above items with PBE, P/N 802300-01, with the polyethylene (daglo orange) container and urethane neck seal. ALS personnel should limit how often the PBEs or EEBDs are removed from or installed into the container to reduce wear-and-tear on the vacuum-sealed bag.

PBEs or EEBDs will remain in their original "hard" carrying case to provide fire and puncture-proof protection.

3.14.1. PBEs are the primary devices used to locate and extinguish an in-flight fire, and afford aircrew the required protection IAW Federal Aviation Regulation Section 121.337, *Protective Breathing Equipment*, and technical standard orders (TSO) C99, *Protective Breathing Equipment*, and TSO-C116, *Crewmember Protective Breathing Equipment*.

3.15.1. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used, as suitable substitutes for EPOS until EPOS is available. For C-130s and C/KC-135s, preposition POKs at passenger positions. Secure the POK on the upper seat support tube using a tie-down strap (NSN 5975-00-984-6582 or equivalent) and a quick release snap (i.e., FASTTEX buckle, P/N SR1, or equivalent). Position the POK bags to the forward side of the passenger and between the seat back webbing to ensure rapid access. Ensure caution tag and retainer pin is removed when POKs are prepositioned on aircraft. For KC-135 aircraft, position three EPOS or POKs aboard aircraft: one in the latrine, one in the cockpit, and one at the galley. AETC students are allowed to preposition POKs, as required.

3.15.2. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used, as suitable substitutes for EPOS until EPOS is available. For C-130s and C/KC-135s, preposition POKs at passenger positions.

4. Survival Vest and Aircrew Body Armor:

4.1. During contingency missions, permanently prepositioned the integrated Air Ace™/Ace Advantage™ [Air Advantage™] survival vest and aircrew body armor (on all aircraft as indicated in the applicable MDS configuration tables. A trademark of Survival Incorporated. C-17, C-130, KC-10, and KC-135 aircraft will have survival vests prepositioned aboard aircraft at all times.

4.4.2. Stencil each container with at least 1-inch letters (all caps) on ends to read as follows:

Command (e.g., AMC, USAFE, PACAF, AFRC, or ANG)	AMC
Unit/ (e.g., 123 AW or 456 ARW)	123 AW
Unit Personnel Accounting Symbol (PAS) Code	SFILFS2X
Local ID Number (e.g., Kit 1A)	KIT 1A

6.1. Anti-exposure suit requirements are based on aircraft PAI and primary crew complement when pre-planned overwater flights meet the criteria of T.O. 1-1-641, *Minimum Equipment Requirements for Overwater, Arctic, and Desert-Tropic Flights*, and intent of AFI 11-202, Volume 3. The CWU-16/P may be issued to satisfy this requirement. The anti-exposure suit will provide protection for and allow crewmembers to remain in the water longer while assisting passengers into the life raft.

6.3. The Multifab Survival Limited (MSL) quick-don anti-exposure suit received a safe-to-fly recommendation from the ALSE Single Manager. Units are authorized to use the MSL as a substitute for the CWU-16/P.

8.1. PCKs contain protective clothing for use by aircrew during emergencies aboard aircraft carrying hazardous cargo IAW Air Force Joint Manual (AFJMAN) 24-204, *Preparing Hazardous Materials for Military Air Shipments*. Each PCK will contain the components listed in this publication (see **Attachment 9**). Units may build kits IAW AFJMAN 24-204 or purchase commercial kits meeting or exceeding AFJMAN 24-204 requirements. Units should contact base environmental or fire protection personnel to determine adequacy of commercial kits being considered.

10.2. Personnel parachutes will be equipped with emergency locator beacons, automatic releases, emergency bailout oxygen cylinders, hook-blade knives, oxygen connector brackets, AFP 64-15, *Survival and Emergency Uses of the Parachute* (will convert to Air Force Pamphlet [AFPAM] 36-2242), Survival Kit (SRU-16/P), and personnel lowering devices (PLD). The installation of PLDs is at the discretion of each MAJCOM.

10.2.1. DELETED.

10.3. Flying helmets are required for bailout and aircrew performing air defense system missions. Helmets will be carried on all missions requiring parachutes or anytime personnel parachutes are prepositioned aboard aircraft (not applicable when carrying passengers). Flying helmets must be used in conjunction with the parachute to avoid head injuries. Unless otherwise directed in the AFI 11-2MDS, Volume 3 series publications for mission requirements. In addition, flight helmets are required whenever the aircrew requires night vision devices (NVD) and flash-blindness devices (MIL-G-635 or EEU-series goggles). Additionally, helmets will be retained for aircrew wearing aircrew chemical defense equipment that require NVDs plus flash-blindness devices to perform their mission in a contaminated environment.

12.1. The AC or a designated aircrew representative is responsible for briefing passengers on emergency equipment before each flight IAW AFI 11-202, Volume 3, T.O. 14D1-2-1, *Personnel Parachutes*, and T.O. 14S-1-102. Passenger-carrying aircraft will have a set of demonstration ALSE mirroring all onboard individually issued passenger equipment (i.e., LPUs, EPOS, oxygen masks, etc.). Do not include LPU-6/P LPUs as part of the demonstration kit.

12.2. To keep this equipment segregated from operational assets, store demonstration equipment in a "red" locally manufactured storage container. Stencil both the storage container and each piece of ALSE "FOR DEMONSTRATION ONLY" in 1/2-inch black (or contrasting color) lettering.

13.Prescribed Forms. DD Form 1574, **Serviceable Tag – Materiel**, AFTO Form 46, **Prepositioned Life Support Equipment**, AFTO Form 338, **Survival Kit Record**.

CARROL H. CHANDLER, Lt Gen, USAF
DCS/Air & Space Operations

References

T.O. 1C-27A-1. DELETED.

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

AFI 11-301, Volume 1, *Aircrew Life Support Program*

AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*

AFPAM 36-2246, *Aircrew Survival*

AFI 11-2C-5, Volume 3, Addenda A, *C-5 Operations Configuration and Mission Planning*

AFI 11-2C-9, Volume 3, *C-9 Operations Procedures*

AFI 11-2C-17, Volume 3, Addenda A, *C-17 Configuration and Mission Planning*

AFI 11-2C-21, Volume 3, *C-21 Operations Procedures*

AFI 11-2C-130, Volume 3, Addenda A, *C-130 Operations Configuration/Mission Planning*

AFI 11-2C-141, Volume 3, Addenda A, *C-141 Operations Configuration/Mission Planning*

AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures*

AFI 11-2KC-135, Volume 3, Addenda A, *C/KC-135 Aircraft Configuration*

AFI 11-2SAM/CSM, Volume 3, *Special Air Missions (SAM) Command Support Mission (CSM) Operations Procedures*

MCI 11-203. DELETED.

MCI 11-204. DELETED.

MCI 11-209. DELETED.

MCI 11-221. DELETED.

MCI 11-258. DELETED.

MCR 55-10. DELETED.

MCR 55-135. DELETED.

AMCR 55-4. DELETED.

12R2-4-321-1, *Operation and Maintenance Instructions With Illustrated Parts Breakdown for Headset Assembly, PRU-57(V)2/P*

15X5-4-10-1, *Operational and Maintenance Instructions With Illustrated Parts Breakdown for Mask Assembly, Folding, Quick-Don Part No. 358-1506V or 358-1506V-1*

15X5-5-3-1, Operation and Maintenance Instructions With Illustrated Parts Breakdown Fire Fighters and Oxygen Smoke Mask Assemblies

Abbreviations and Acronyms

ALSE—Aircrew Life Support Equipment

EEBD. DELETED

LSE. DELETED

MCI. DELETED

MSL—Multifab Survival Limited

Terms

Aircrew Life Support Equipment (ALSE)—ALSE encompasses all equipment (aircrew and passenger) part of the 412A aircrew life support system or as designated by this publication.

Life Support Equipment (ALSE). DELETED.

Serviceable Storage—ALSE exceeding day-to-day mission requirements, but required for contingencies. Inspections will not exceed 12 months.

Attachment 2

DELETED.

Attachment 7, Table A7.1., Note 1:

1. Combat Survivor Evader Locator (CSEL) radios will not be placed in equipment that will be permanently prepositioned aboard aircraft. Pockets on the survival vest may be relocated to ensure ALSE integration.

Attachment 9

PROTECTIVE CLOTHING KIT (PCK) COMPONENTS

Noun	National Stock Number	Quantity
Apron	8415-00-634-5023	2 each
Gloves, Rubber	8415-00-266-8675	2 pair

Noun	National Stock Number	Quantity
Gloves, Aramid	8415-00-092-3910	1 pair
Shears, Metal Cutting	5110-00-092-3910	1 each
Absorbent Pads (see note 1)	Local Purchase	As required
Bags, Plastic	8105-00-848-9631	3 each
Tape, Masking, 1"	7510-00-266-6712	1 roll
Dustpan, Rubber	7290-00-616-0109	1 each
Broom, Whisk, 10"	7920-00-240-6350	1 each

NOTES:

1. Coordinate with base environmental or fire department personnel to ensure the commercial product meets or exceeds the absorbency capacity equivalent to five pounds of vermiculite.
2. Neutralizers for corrosive agents are not part of this kit.