

UNITED STATES SPECIAL OPERATIONS COMMAND

7701 Tampa Point Boulevard

MacDill Air Force Base, Florida 33621-5323

USSOCOM MANUAL

Number 350-3

19 October 2018

Training

SPECIAL OPERATIONS FORCES BASELINE INTEROPERABLE
AIRBORNE OPERATIONS (PARACHUTING) TRAINING STANDARDS

FOREWORD

1. Purpose. This manual prescribes policy and procedures, assigns responsibilities, and directs actions that govern the management and conduct of U.S. Special Operations Command (USSOCOM) airborne (personnel and cargo) operations.

2. Applicability. This manual is applicable to; Headquarters (HQ) USSOCOM, Theater Special Operations Commands (TSOCs), U.S. Army Special Operations Command (USASOC), Marine Corps Forces Special Operations Command (MARSOC), Naval Special Warfare Command (NSWC), Air Force Special Operations Command (AFSOC), Joint Special Operations Command (JSOC), and the National Guard Special Operations Detachments (SOD).

3. Proponent. The proponent for this manual is USSOCOM Directorate of Joint Special Operations Forces (SOF) Development (JSD-J7), Training & Education Deputy Directorate (J7-T&E), Individual Training Division (J7-T&E-T), Attention (ATTN): Plans and Policy Branch (J7-T&E-TP), 7701 Tampa Point Boulevard (Blvd), MacDill Air Force Base (AFB), Florida 33621-5323.

(J7-T&E)

*This Manual supersedes M 350-3, 14 September 2017. (See [Summary of Changes](#) on page ii.)

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SUMMARY OF CHANGES

THIS MANUAL CONTAINS NUMEROUS CHANGES AND ADDITIONS. PLEASE READ IN ITS ENTIRETY BEFORE CONDUCTING ANY TYPE OF TRAINING.

RECORDS MANAGEMENT NOTICE: ALL RECORDS PERTAINING TO USSOCOM THAT ARE CREATED BASED ON THIS PUBLICATION MUST BE MAINTAINED AND RETAINED IAW THE CHAIRMAN OF THE JOINT CHIEFS OF STAFF (CJCS) MANUAL (CJCSM) 5760.01, VOLUMES I AND II; DEPARTMENT OF DEFENSE (DOD) DIRECTIVE (DODD) 5015.2, AND [USSOCOM DIRECTIVE \(D\) 25-51](#), *RECORDS MANAGEMENT PROGRAM*.

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CHAPTER 1

GENERAL

1-1. General.

a. The mission of USSOCOM is to “provide fully capable SOF to defend the U.S. and its interests, and synchronize planning of global operations against terrorist networks in worldwide support of U.S. policy and objectives.” The mission of U.S. SOF is to conduct Special Operations (SO) to prepare the operational environment, prevent crises, and respond with speed, precision, and lethality to achieve tactical advantages through strategic effects. To that end USSOCOM employs a dynamic, capabilities-focused, training strategy based upon the CJCS Joint Training System that ensures SOF operators will continue to master the individual and collective war fighting skills that enable operational and tactical success across the spectrum of conflict.

b. This manual provides the policy foundation for the development of USSOCOM Major Subordinate Command (MSC) tactical airborne doctrine, tactics, techniques, and procedures (TTP), training literature, and the conceptual framework to facilitate interoperability. It describes the core tasks that make up the consolidated SOF Baseline Interoperable Standards (SOFBIS) for the associated skill sets that comprise SO airborne operations training.

c. This manual does not pertain to USSOCOM Command Demonstration Teams (e.g., Leap Frogs, Black Daggers, and Commandos); it is a consolidated reference to assist commanders (CDRs) at all levels in preparing SOF to execute the collective airborne operations skill sets during tactical training and exercises. A systems approach will be used to focus on a major functional capability that includes individual and collective Courses of Instruction (COI) and Programs of Instruction (POI). Each USSOCOM MSC’s publications and programs for airborne operations training were reviewed to create the joint policies and guidance.

d. Explanation of Terms. Acronyms and abbreviations used in this manual are first spelled out, and then used repeatedly throughout this manual.

(1) “Will” and “shall” indicate a mandatory requirement.

(2) “Should” indicates a recommended procedure.

(3) “May” indicates an acceptable means of accomplishment.

1-2. Scope. The policies, procedures, and responsibilities established herein provide direction for HQ USSOCOM staff and all organizations, units, and forces conducting airborne operations training under the authority of USSOCOM.

1-3. Objectives. USSOCOM CDR's Training and Education Guidance (CTEG) directs SOF to train as part of a joint (inter-SOF, SOF and conventional forces [CF]), interagency, and multinational (coalition partners) team to improve interoperability and interdependence. This manual is the authoritative joint training reference to; establish joint baseline interoperable standards, address joint/common SOF training requirements, and coordinate SOF efforts by identifying TTPs and best practices for the conduct of airborne operations training across the SOF Enterprise. Additional objectives are:

- a. Provide policy guidance to USSOCOM MSC training programs that produce and maintain sufficient numbers of appropriately trained SOF personnel to conduct airborne operations worldwide in support of U.S. policy and objectives.
- b. Provide baseline interoperable standards that establish SOF TTPs to increase interoperability of the force.
- c. Establish the reference document for the periodic assessment of the integration of SOFBIS in Service/USSOCOM MSC Airborne Training (AT) programs.
- d. Validates airborne operations training is conducted in a safe manner and in accordance with (IAW) USSOCOM MSC Operational Risk Management (ORM) Programs.
- e. Provide CDRUSSOCOM visibility on all Major Force Program-11 (MFP-11) funded AT programs within his authority.

1-4. Authorities.

- a. USSOCOM derives authorities as the SOF Advocate from Title 10 U.S. Code (U.S.C.) for all assigned SO core activities and all additional skills and capabilities assigned in [USSOCOM D 10-1, Terms of Reference - Roles, Missions, and Functions of Component Commands](#). As the SOF Advocate, USSOCOM is responsible for the development of strategy, doctrine, and tactics; training of assigned forces; conduct of specialized COIs/POIs; validating and establishing priorities for requirements; ensuring the interoperability of equipment and forces assigned; ensuring the combat readiness of forces assigned; the development and acquisition of SO-Peculiar (SO-P) equipment, material, supplies, and services, and exercising authority, direction, and control over the expenditure of MFP-11 funds.
- b. USSOCOM JSD-J7 relies on Service Component subject matter experts (SME), through the assignment as Lead Component (LC) or Coordinating Components (CC), to ensure all Title 10 U.S.C. responsibilities are met across the joint SOF.
- c. Unless otherwise assigned in this manual, CDRUSSOCOM retains approval, validation, and certification authority.
- d. CDRUSSOCOM has designated USASOC as LC for the airborne enterprise. As LC, USASOC serves as the SME on all matters pertaining to the operations, training, doctrine, safety, equipment, and interoperability of USSOCOM airborne forces in the area of SL, MFF, Tandem, and non-standard airborne operations training.

(1) USSOCOM JSD-J7 relies on USASOC for all matters pertaining to airborne operations, training, doctrine, safety, equipment, and interoperability of assigned and attached USSOCOM forces.

(2) USASOC will develop and recommend standardized airborne SOFBIS qualifications for all USSOCOM MSCs in the designated skill. This includes periodic evaluation of the airborne capability produced at USSOCOM validated schools against SOFBIS.

(3) USASOC will call meetings, establish agendas, Plans of Action & Milestones (POA&M), and recommend tasks, conditions, and standards for the airborne capability.

(4) USASOC, in coordination with USSOCOM JSD-J7, J7-T&E will;

(a) Develop, with CCs, recommended standardized CTL for airborne capabilities.

(b) Conduct periodic assessments of the airborne capability produced at USSOCOM validated schools against SOFBIS for certification.

(c) Develop, publish, and distribute airborne related safety messages, equipment bulletins, and quality deficiency reports across the joint SOF Enterprise IAW appropriate messaging/reporting requirements.

(d) Participate in or maintain oversight on the development, testing, and standardization of airborne related equipment that affect the Joint SOF Enterprise.

(5) It is imperative USASOC view their roles and responsibilities with a joint perspective. Unless otherwise stated in the Service/USSOCOM Memorandum of Agreement, when Service/USSOCOM MSC publications conflict, USSOCOM authorities and publications take precedence.

(6) USASOC will coordinate and staff all recommendations to establish and/or change existing doctrine, requirements, or TTPs that affect the joint SOF Enterprise IAW change recommendation (CR) procedures described in this manual and [USSOCOM D 350-1](#), *USSOCOM Military Training – Individual*, 31 July 2017.

e. JSOC, NSWC, MARSOC, AFSOC, TSOC, and SODs have equities in airborne operations training and are designated CCs. CCs will:

(1) Assist USASOC with drafting or revising joint policy for training and safety standards, doctrine, Research, Development, Test & Engineering (RDT&E), of equipment.

(2) In coordination with USSOCOM JSD-J7, CCs can call meetings, establish agendas, POA&Ms, and establish tasks, conditions, and standards for the airborne capability.

f. **USSOCOM Command Airdrop Advisor.** The delegated authority within USSOCOM responsible for carrying out quality assurance functions and ensuring policy and procedures are sustained as they pertain to USSOCOM airborne (personnel and cargo) systems and training.

(1) Technical advisor on all matters relating to aerial delivery operations, training, personnel, doctrine, and research and development needs.

(2) Develops, in coordination with USSOCOM MSCs, baseline interoperable training standards for SOF-unique aerial delivery capabilities and implements them into a variety of USSOCOM publications.

g. The following Defense Switched Network (DSN) numbers are provided for additional information. Direct specific reference questions to the appropriate airborne operations SMEs listed below:

- | | |
|-------------------------------------|---------------|
| (1) AFSOC A3V | DSN: 579-0476 |
| (2) JSOC J37 | DSN: 383-2580 |
| (3) Marine Raider Regiment S-3 | DSN: 758-0624 |
| (4) MARSOC G-7 Training & Education | DSN: 758-0852 |
| (5) NSWC N32 | DSN: 367-1799 |
| (6) USASOC G-37 | DSN: 239-3084 |
| (7) USSOCOM JSD-J7, J7-T&E-TP | DSN: 299-4783 |

CHAPTER 2

RESPONSIBILITIES

2-1. General. Airborne operations training are a fundamental capability to USSOCOM MSCs. It is the responsibility of individuals instructing or conducting training to maintain proficiency in established joint processes and procedures necessary for the alignment and professional execution of an institutionalized joint AT program. A clear understanding of this manual supplemented with Service/USSOCOM MSC publications, SO-P TTPs, and best practices is key to the integration and appropriate standardization of airborne operations. This Chapter delineates specific responsibilities for key personnel and organizations in the planning, preparation, and execution of airborne operations by USSOCOM MSCs.

2-2. Specific Responsibilities.

a. **HQ USSOCOM.** IAW Title 10 U.S.C., Section 164, *CDRs of Combatant Command (CCs): Assignments; Powers and Duties*, Section 167, *Unified CCs for SO*, DODD 5100.01, *Functions of the DOD and its Major Components*, CJCS Instruction (CJCSI) 3500.01H, *Joint Training Policy and Guidance for the Armed Forces of the U.S.*, and CJCSM 3500.03E, *Joint Training Manual for the Armed Forces of the U.S.*, USSOCOM will:

- (1) Prepare and train assigned forces.
- (2) Provide authoritative direction and oversight to USSOCOM Major Subordinate CDRs on all aspects of SO training.
- (3) Evaluate the effectiveness of all SO training to ensure SOF and equipment are interoperable and support Geographic Combatant CDRs (GCC) mission requirements.
- (4) Publish the annual SO Joint Training Plan in the Joint Training Information Management System, the CTEG, and the annual Command Training Assessment Plan.

b. USSOCOM Directorate of Operations (J3).

- (1) Review Mission Guidance Letters and validate theater operational airborne requirements in support of GCC activities.
- (2) Ensure USSOCOM MSC AT programs provide trained and proficient forces capable of meeting TSOC Theater/operational mission requirements.

c. USSOCOM JSD-J7.

(1) Serve as the Office of Primary Responsibility (OPR) for all airborne operations training policies, guidance, requirements, standards, COIs/POIs, and related issues.

(2) Manage the development and coordination of all joint SOF training doctrine, concepts, and policies for airborne operations.

(3) Serve as OPR for the development and alignment of airborne operations Joint Mission Essential Task Lists and SOFBIS.

(4) Conduct annual reviews and biennial Joint Special Operations Forces Assessment Team (JSAT) assessments of individual and collective airborne operations training programs to validate the implementation and accomplishment of joint airborne SOFBIS in Subordinate Command (SC) training programs; and establish the baseline for measuring progress in future assessments.

(5) Track and maintain all waivers and Exception to Policies (ETPs) submitted and approved by the USSOCOM Chief of Staff (COS) and USSOCOM MSCs, and authorized Subordinate Unit Commands.

(6) Promulgate proposed changes, revise this manual as required, and distribute changes, updates, and re-publications of this manual to USSOCOM MSCs.

(7) Be prepared to report to the joint SOF Enterprise on the status of joint AT programs with reference to J7-T&E responsibilities above at the annual SO Training and Education Conference (SOTEC).

(8) Develop, re-transmit, and distribute applicable safety messages, equipment bulletins, and quality deficiency reports to the joint SOF Enterprise as required.

d. USSOCOM SOSE (Joint Safety).

(1) Serve as the command point of contact (POC) for safety and ORM issues related to AT and operations.

(2) Provide safety guidance and assistance to CDRUSSOCOM, key staff, and the Command Airdrop Advisor for posting to the MFF Community of Practice, and to USSOCOM MSCs on airborne operations training mishaps as requested.

(3) Publish critical Component level safety information related to AT, mishaps, and operations to CDRUSSOCOM, Command Airdrop Advisor, and USSOCOM MSCs.

(4) Identify and promulgate mishap/accident trends and provide summaries and analysis related to AT and operations to CDRUSSOCOM, key staff, and Command Airdrop Advisor to review and make recommendations through appropriate channels.

(5) Leverage Service Class A mishap investigations involving a USSOCOM MSC to include adding member of that SC on the mishap investigation team as required.

(6) Obtain copies and notify the Command Airdrop Advisor of completed Service Class A mishap investigations involving a USSOCOM MSC for dissemination of critical information, findings, and recommendations pertaining to all SC airborne operations.

e. USSOCOM SOF Acquisition, Technology, and Logistics (SOF AT&L).

(1) **SOF AT&L.** Serve as the SOF lead for the development, acquisition, fielding, and certification of SO-P training simulators, devices, and training solutions, both prior to and during the initiation of formal requirements and acquisition processes; and throughout the lifecycle of training system(s)/equipment.

(2) **Program Executive Office (PEO)/Product Manager (PM) SOF Warrior.** PEO/PM-SOF Warrior will advise and coordinate with J7-T&E (USSOCOM Command Airdrop Advisor) to address SL, MFF, and Tandem parachuting issues throughout the RDT&E and lifecycle of aerial delivery training system(s)/equipment and SO-P aerial delivery technology procured with the intent to field.

(3) **PM-SOF Survival, Support, and Equipment Systems (PM-SOF SSES).** As a courtesy, PM-SOF-SSES will periodically inform J7-T&E (USSOCOM Command Airdrop Advisor) on RDT&E of aerial delivery training system(s)/equipment and SO-P aerial delivery technology associated with the National Mission Force.

f. USSOCOM Major Subordinate CDRs.

(1) Train, maintain, and report on the combat readiness of assigned forces to conduct assigned airborne missions.

(2) Align and conduct airborne operations training IAW policies and procedures established in applicable Service/USSOCOM MSC publications and this manual.

(3) Ensure aerial delivery equipment used is DOD or Service/USSOCOM MSC authorized.

(4) Conduct assessments to ensure SOFBIS is achieved.

(5) Capture and incorporate SOF-unique airborne operations training lessons learned and best practices and send them to USSOCOM J7-T&E (Command Airdrop Advisor) for posting on the USSOCOM MFF CoP Portal.

(6) Issue amplifying regulations, instructions, manuals, and directives to meet command unique requirements.

(7) Conduct biennial operational, administrative, and materiel inspections of subordinate units to verify compliance with applicable Service/USSOCOM MSC publications and this manual.

(8) Ensure all jump mishaps resulting in serious injury or death are reported within 12 hours IAW Army Regulation (AR) 59-4/ Chief of Naval Operations Instructions (OPNAVINST) 4630.24D/ Air Force Journal (AFJ) 13-210(I)/Marine Corps Order (MCO) 13480.1D.

(9) Provide monthly air/afloat and ground/ashore mishap summaries to the USSOCOM Safety Office on Class A thru Class C mishaps, potentially high interest accidents, and all critical safety issues that might impact other SCs for inclusion in the Monthly Safety Summary, Trends, Analysis, and Recommendations Report. Regulations, reports, and POCs can be located at:
<https://sof.hq.socom.smil.mil/sites/socs/Safety/default.aspx>.

(10) Coordinate with J7-T&E and other USSOCOM Major Subordinate CDRs to evaluate and report on the status of airborne operations training issues for the J7-T&E annual SOTEC.

(11) Coordinate with HQ USSOCOM, J7-T&E, SOF AT&L, and other USSOCOM Major Subordinate CDRs for the development and fielding of simulations, simulators, training devices, and accompanying training solutions to support AT.

(12) Coordinate with HQ USSOCOM, J7-T&E, and other USSOCOM Major Subordinate CDRs to develop/contribute to SO airborne operations training publications and materials.

CHAPTER 3

SOF BASELINE INTEROPERABILITY STANDARDS

3-1. General.

a. SOFBIS is developed in collaboration with USSOCOM MSCs and is derived from responsibilities assigned to Component CDRs as defined in [USSOCOM D 10-1cc](#).

b. The jointly developed CTL with assessable conditions and standards describe “what” is to be performed in terms common to joint training. The associated conditions and standards for each CTL item describe the tactical “how” and are the focus of Component CDRs and their training SMEs.

c. Collectively, the CTL with the assessable conditions and standards institutionalizes common training standards for intra-SOF, SOF and CF, and SOF with Partner Nation interoperability and integration. They establish the baseline for the JSAT Assessment Program and the criteria for program certification.

3-2. Airborne Capability.

a. Airborne operations are a unit level/collective training capability built on the successful completion of a Service/USSOCOM MSC’s basic SL, MFF, and Tandem COI/POI. Airborne operations training programs utilize the “crawl”, “walk”, “run” teaching method to thoroughly teach the basics and advance the jumper to a level where he can safely exit an aircraft in flight, land without injury, and continue the mission. The individual skills and additional/associated conditions and standards are or can be assessed and graded within each SCs training cycle before commencing the airborne operations block of instruction.

b. All USSOCOM SL, MFF, and Tandem training conducted under the authority of USSOCOM will abide by the policies, procedures, safety standards, and baseline interoperable tasks, conditions, and standards listed in this manual that establish the SOF Enterprise TTPs.

c. USSOCOM MSCs may adopt or refer to portions of other Service/USSOCOM MSC airborne publications when writing their own internal airborne publications, and are encouraged to add peaks of excellence (PoE) addressing unique training requirements specific to their organizations; however, subordinate publications must align and enforce the minimum baseline policies, procedures, TTPs, safety, and administrative standards within this manual. USSOCOM MSC internal airborne publications can add to but will not be less restrictive than this manual.

d. The following are commonly known Service/USSOCOM MSC publications and should be referenced when creating internal airborne publications:

- (1) **JSOC**. JSOC Training, Standing Operating Procedures (SOP), Version-22.

(2) **NSWC.** CDRNSWC Instruction (COMNAVSPECWARCOMINST) 3000.3 Series, Naval Special Warfare Parachuting and Cargo Airdrop Operations Instruction.

(3) **USASOC.** Army Techniques Publication (ATP) 3-18.10 (with change-1), *Special Forces Air Operations*, ATP 3-18.11, Special Forces Military Free Fall Operations (with change 1 and 2), Training Circular (TC) 18-11, Special Forces MFF and Double-Bag Static Line Operations (with change 1 and 2), and USASOC Regulation (R) 350-2, *Airborne Operations*.

(4) **U.S. Air Force (USAF).** AF Instruction (AFI) 11-410, *Personnel Parachute Operations*.

(5) **U.S. Army (USA).** TC 3-21.220 Static Line Parachuting Techniques and Training.

(6) **U.S. Marine Corps (USMC).** MCO 3120.11A, MC Policy and Program Administration and Technical Manual (TM) 70244A-OIA, U.S. Marine Corps Military Free Fall Operations.

(7) **U.S. Navy (USN).** Office of the OPNAVINST 3501.225 Series, Navy Premeditated Personnel Parachuting and Cargo Airdrop Program.

e. USSOCOM personnel are authorized to conduct SL, MFF, and Tandem parachute operations after the successful completion of a USSOCOM recognized or military certified SL, MFF, or Tandem COI/POI or a recognized or certified commercial training COI/POI, to include any transition training required by SC policy. For definitions of certified and recognized COI/POI refer to the [Glossary, Section II](#). The following military and commercial SL, MFF, and Tandem COIs/POIs are currently recognized or certified by USSOCOM:

(1) **JSOC:**

(a) The Joint MFF Basic Course, Fort Bragg, North Carolina 28307. Certified.

(b) The Joint MFF JM Course, Fort Bragg, North Carolina 28307. Certified.

(c) The Joint MFF Tandem Master Course, Fort Bragg, North Carolina 28307. Certified.

(2) **NSWC:**

(a) The Naval Special Warfare Center (NSWCEN), Advanced Training Command (ATC), Navy Parachute Course (NPC) – Basic SL Course, Course Identification Number (CIN) A-431-0135, 1 Hooper Blvd Imperial Beach, California 91932-1050. Certified.

(b) NSWCEN ATC NPC Basic MFF Course, CIN A-431-0136, 13531 Otay Lakes Road, Jamul, California 91935. Certified.

(c) NSWCEN ATC SL JM Course, CIN K-431-0084, 1 Hooper Blvd Imperial Beach, California 91932-1050 – Certified, and 1081 Okinawa Road Virginia Beach, Virginia 23459. Certified.

(3) USASOC:

(a) The USASOC SOF SL JM Course; Mobile Training Teams (MTT), taught at various locations. Certified.

(b) The MFF Parachute Course, CIN 2E-S14X-ASI4X-011-ASIW8, Yuma Proving Grounds (YPG), Yuma, Arizona 85365. Certified.

(c) The Special Forces MFF JM Course, CIN 2E-F56/011-F15, YPG, Yuma, Arizona 85365. Certified.

(4) USAF – Air Education and Training Command: Combat Control School; SL JM Course, Pope Army Airfield, Fort Bragg, North Carolina. Recognized.

(5) USAF – Air Combat Command (ACC):

(a) Guardian Angel MFF JM Course (68th Rescue Squadron), Davis-Monthan AFB, Tucson, Arizona 85707. Certified.

(b) ACC MTM & Military Tandem Tethered Bundle (MTTB) Course, taught at various locations. Recognized.

(6) USMC:

(a) The Multi-Mission Parachute Course, CIN M50KLD1, North Coolidge Airport Road Coolidge, Arizona 85128. Certified.

(b) The Tandem Offset Resupply Delivery System (TORDS), Equipment Course, CIN M02KAYM, MTT, taught at various locations. Recognized.

(c) TORDS, Personnel Course, CIN M02KA3M, MTT, taught at various locations. Recognized.

(7) USA:

(a) Infantry Center and School, U.S. Army Maneuver Center of Excellence (MCoE); Basic SL Course, CIN 2E-SI5P/SQIP/011-SQIP, Fort Benning, Georgia. Recognized.

(b) Infantry Center and School, MCoE; SL JM Course, CIN 2E-SI5W/011-ASI5W, Fort Benning, Georgia. Recognized.

(c) The U.S. Army Advanced Airborne School, 82d Airborne Division; SL JM Course, 2E-SI5W/011-ASI5W, Fort Bragg, North Carolina. Recognized.

f. The qualified individual will be able to effectively exit an aircraft in flight and demonstrate proficiency in the execution of simple to complex tasks associated with airborne operations. SOF personnel will successfully and safely conduct a wide variety of high-risk airborne operations at multiple altitudes using a variety of different parachute systems and associated ancillary equipment to dominate the environment while maintaining situational awareness.

3-3. Baseline Interoperable Airborne Operations Critical Task Lists (CTLs). The fundamentals of parachuting integrate all of the physical, mental, and environmental factors necessary to successfully conduct a clandestine insertion. Parachuting is a perishable skill that requires constant practice to maintain peak proficiency. A disciplined and challenging program that routinely practices at unknown locations, in varying weather, temperature, and light conditions, through multiple and challenging scenarios will develop the airborne capability required to accurately insert and arrive at a designated time on a specific objective/location.

a. SOF SL Capability.

(1) **SOF Basic SL Training.** Upon completion of a USSOCOM certified/recognized SL COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with SL parachuting.

Table 3-1. Basic SL Critical Task List (CTL).

	SL, Basic
TASK #	TASKS
1-1.	Identify the Components of the SL Main and Reserve Parachute System.
1-2.	Don and Adjust the Maneuverable Canopy (MC)-Series SL Main and Reserve Parachute with or without Combat Equipment (CE). See NOTE
1-3.	Identify and Utilize the Components, Anchor Line Cables, Troop Parachute Doors/Ramp, and Proper Exit Procedures from an Aircraft Mock-Up.
1-4.	Control the MC-Series Main Parachute from a Suspended Harness.
1-5.	Demonstrate Proper Exit, Check Body Position, and Count from a Swing Landing Trainer (SLT).
1-6.	Properly Execute a Parachute Landing Fall (PLF) During Ground Training.
1-7.	Perform Methods of Recovery Utilizing the Canopy Release Assembly.
1-8.	Demonstrate Techniques for Deploying the Reserve Parachute for Partial and Total Malfunctions.
1-9.	Execute the Procedures and Actions Taken to React to Collisions, Entanglements, and the Three Emergency Landings – Trees, Wires, and Water.
1-10.	Respond to Jump Commands and Execute Exits Utilizing the Mock Door/Ramp.

Table 3-1. Basic SL Critical Task List (CTL). (Cont.)

	SL, Basic
TASK #	TASKS
1-11.	Properly Respond to Jump Commands While Inside the Aircraft.
1-12.	Demonstrate Proper Exit, Check Body Position, and Count from an Aircraft In-Flight.
1-13.	Control the SL Main Parachute During Decent.
1-14.	Properly Execute a PLF Upon Landing after Conducting a SL Parachute Jump.
NOTE: For the purpose of this manual, CE is defined as a rucksack only.	

(2) **SOF SL JM Training.** Upon completion of a USSOCOM certified/recognized SL JM COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with SL JM duties.

Table 3-2. SL JM CTL.

	SL, JM
TASK #	TASKS
1-1.	Introduction to the SL JM Course.
1-2.	Duties and Responsibilities of the JM Team.
1-3.	Rig Individual Weapon and CE.
1-4.	Duties and Responsibilities of the Drop Zone (DZ) Safety Officer (DZSO).
1-5.	DZ Selection and Survey.
1-6.	Conduct SAT.
1-7.	Prepare Acquired Aircraft for Airborne Operations.
1-8.	Jump Commands and Actions in the Aircraft.
1-9.	Visual Navigation Aids.
1-10.	Special Airborne Operations – Deliberate Water DZs, Computed Aerial Release Point (CARP) with or without a Combat Control Team (CCT), Ground Marking Release System (GMRS), Marked Point of Impact (MPI), and Verbally Initiated Release System (VIRS).
1-11.	Review Duties of the DZSO/Departure Airfield Control Officer (DACO).
1-12.	DZSO Practical Exercise.
1-13.	Conduct a Jumpmaster Personnel Inspection (JMPI).
1-14.	Conduct Practical Work in the Aircraft (PWAC).
1-15.	Examinations (SAT, DZSO, General Subjects, JMPI, and PWAC).

(3) The SOF baseline tasks, conditions, and standards for a SOF Basic SL Course are contained in [Appendix A](#).

(4) The SOF baseline tasks, conditions, and standards for a SOF SL JM Course are contained in [Appendix B](#).

b. SOF MFF Capability.

(1) **SOF Basic MFF Training.** Upon completion of a USSOCOM certified/recognized MFF COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with MFF parachuting.

Table 3-3. Basic MFF CTL.

	MFF, Basic
TASK #	TASKS
1-1.	Pack the Ram-Air Personnel Parachute System (RAPPS) in the MFF Configuration.
1-2.	Activate the Electronic Automatic Activation Device (EAAD).
1-3.	Don the RAPPS for a MFF Parachute Jump.
1-4.	Rig Individual Weapon, CE, Oxygen, and Night Vision Devices (NVD).
1-5.	Respond to Aircraft Procedures and Jump Commands During a MFF Jump.
1-6.	React to In-Flight Emergencies During a MFF Jump.
1-7.	React to Emergencies While in Free-Fall.
1-8.	Perform Body Stabilization Techniques.
1-9.	React to RAPPS Deployment Emergencies During a MFF Jump.
1-10.	React to RAPPS Post Opening Emergencies During a MFF Jump.
1-11.	Perform a RAPPS MFF Daytime High Altitude Low Opening (HALO) Jump with Weapon, CE, Oxygen, and NVDs as Part of a Group.
1-12.	Perform a RAPPS MFF Nighttime HALO Jump with Weapon, CE, Oxygen, and NVDs as Part of a Group.
1-13.	Perform a RAPPS MFF Daytime High Altitude High Opening (HAHO) Jump with Weapon, CE, Oxygen, and NVDs as Part of a Group.
1-14.	Maneuver the RAPPS to a Designated Point on the Ground as a Member of a Group.

(2) **SOF MFF JM Training.** Upon completion of a USSOCOM certified/recognized MFF JM COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with MFF JM duties.

Table 3-4. MFF JM CTL.

	MFF, JM
TASK #	TASKS
1-1.	Introduction to MFF JM Training.
1-2.	Compute the High Altitude Release Point (HARP) for a HALO and HAHO Airborne Operation.
1-3.	Calculate and Set the Altimeter for MFF Airborne Operations.

Table 3-4. MFF JM CTL. (Cont.)

	MFF, JM
TASK #	TASKS
1-4.	Compute and Set the Military EAAD for MFF Airborne Operations.
1-5.	Complete the MFF JM Academic Examinations.
1-6.	Perform JMPI of the RAPPS in the MFF Configuration.
1-7.	Identify the Qualifications, Duties, and Responsibilities of the JM and DZSO Teams.
1-8.	Review Canopy Control (HALO and HAHO).
1-9.	React to MFF Emergencies.
1-10.	Discuss MFF Proponency, Regulations, and Future Concepts.
1-11.	Issue Jump Commands and Hand and Arm Signals for MFF Airborne Operations.
1-12.	Review Oxygen Equipment and Procedures.
1-13.	Conduct MFF Refresher Training.
1-14.	Rig CE, Weapon, Oxygen, and NVDs for MFF Airborne Operations.
1-15.	Perform Primary and Assistant JM Duties During MFF Airborne Operations.
1-16.	Direct an Aircraft to the HARP.
NOTE: All USSOCOM certified MFF JM schools will add a non-tactical Commercial-Off-the-Shelf (COTS) RAPPS JMPI block of instruction to their COI/POI.	

(3) The SOF baseline tasks, conditions, and standards for a Basic MFF Course are contained in [Appendix C](#).

(4) The SOF baseline tasks, conditions, and standards for a MFF JM Course are contained in [Appendix D](#).

c. SOF Tandem Capability.

(1) Tandem passengers not physiologically trained IAW AFI 11-409, *High Altitude Airdrop Mission Support Program*, are limited to unpressurized operations between 10,000 feet Mean Sea Level (MSL) and 13,999 feet MSL for up to 30-minutes unless they have successfully completed physiological training within the last 5 years.

(2) SOF MTM Passenger Training. Upon completion of a USSOCOM certified/recognized MTM Passenger COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with MTM duties for jumping a passenger.

Table 3-5. MTM (Passenger) CTL.

	MTM, Passenger
TASK #	TASKS
1-1.	Know Military Tandem Regulations and Procedures.
1-2.	Pack a Military Tandem Parachute System (MTPS).
1-3.	Rig Personnel CE, Weapon, and Oxygen for a MTPS Operation.
1-4.	Conduct JMPL.
1-5.	Conduct Passenger Brief.
1-6.	Respond to Aircraft Signals and Jump Commands.
1-7.	React to an Aircraft Emergency.
1-8.	React to Emergencies During Free-Fall and Drogue Fall.
1-9.	React to Emergencies Under Canopy.
1-10.	Perform the Following Jumps (Self Set Drogue): <ul style="list-style-type: none"> a. Tandem passenger daytime jump (slick) demonstrating the ability to self-set the drogue parachute. b. Conduct tandem passenger terminal. c. Tandem passenger daytime jump with CE, weapon, and oxygen. d. Tandem passenger nighttime jump (slick) while wearing NVDs. e. Tandem passenger nighttime jump with CE, weapon, oxygen, and NVDs.
1-11.	Maneuver the MTPS to the Designated DZ.
1-12.	React to Emergencies Associated with Landing (Under Canopy).
1-13.	Execute Landing.

(3) The SOF baseline tasks, conditions, and standards for a MTM Passenger Course are contained in [Appendix E](#).

(4) SOF MTM Bundle Training. Upon completion of a USSOCOM certified/recognized MTM Bundle COI/POI, the qualified SOF individual/unit will be able to effectively apply and demonstrate the tasks associated with MTM duties for jumping a bundle.

Table 3-6. MTM (Bundle) CTL.

MTM, Bundle	
TASK #	TASKS
1-1.	Know Military Tandem Regulations and Procedures.
1-2.	Pack a MTPS.
1-3.	Rig Personnel CE, Weapon, and Oxygen for a MTTB System (MTTBS) Operation.
1-4.	Conduct a MTTBS Inspection.
1-5.	Conduct JMPL.
1-6.	Respond to Aircraft Signals and Jump Commands.
1-7.	React to an Aircraft Emergency.
1-8.	Perform the Following Jumps: <ul style="list-style-type: none"> a. Conduct a self-set drogue jump without a tethered bundle. b. Conduct a MTTB self-set drogue jump. c. Conduct a MTTB daytime jump (slick). d. Conduct a MTTB daytime jump with CE, weapon, and oxygen. e. Conduct a MTTB nighttime jump (slick) while wearing NVDs. f. Conduct a MTTB nighttime jump with CE, weapon, oxygen, and NVDs.
1-9.	React to Emergencies During Free-Fall and Drogue Fall.
1-10.	React to Emergencies Under Canopy.
1-11.	Intentionally Release a Bundle While Under Canopy.
1-12.	Maneuver the MTTBS to the Designated DZ.
1-13.	React to Emergencies Associated with Landing (Under Canopy).
1-14.	Conduct Drogue Setter Duties.

(5) The SOF baseline tasks, conditions, and standards for a MTM Bundle Course are contained in [Appendix F](#).

3-4. Refresher Training. All USSOCOM jumper-qualified personnel must complete either SL, MFF, JM, MTM, or DZSO refresher training prior to participating in an airborne operation if the individual has not made a military parachute jump or performed JM, MTM, or DZSO duties within the last 6-month period. SL, MFF, JM, MTM, or DZSO refresher training will be conducted IAW applicable Service/USSOCOM MSC publications, and this manual.

a. To maintain the required on-call capability and ensure safe AT, appropriate sustainment and refresher training must be continuously reinforced at the unit/command level. SC airborne operations training plans will be unit specific. Training will be progressive to attain and maintain the skill proficiency level required to successfully conduct airborne operations in support of assigned missions in all projected operational environments.

b. Collective AT will be integrated with other Mission Essential Task Lists (METL) focused training as much as possible. The use of realistic field training exercises based on full mission profiles to train and evaluate the unit's infiltration capability should be the standard rather than the exception. Details outlining re-qualification training schedules and performance standards for parachuting skill sets are determined by and contained in Service/USSOCOM MSC publications, referencing SOFBIS and schoolhouse standards.

3-5. Sustainment Training. Sustainment training will be conducted within 48 hours of station time with approval of the Airborne CDR/ Officer in Charge (OIC)/Non-Commissioned Officer in Charge (NCOIC).

CHAPTER 4

JOINT SOF ASSESSMENT TEAM

4-1. General.

a. IAW USSOCOM D 350-1 and the annual CTEG, the J7-T&E Readiness Division (J7-T&E-R), Assessments Branch (J7-T&E-RA) will, on a 24-month schedule, coordinate a JSAT assessment. The JSAT will assess and validate SOF training courses IAW 350-series training publications and the SO Training Assessment Plan. The Director of JSD-J7 will certify or decertify the SOF training course based on the findings and recommendations forwarded by the JSAT.

b. J7-T&E-RA will coordinate and schedule SOF training course assessments among the Services and USSOCOM Components.

c. The purpose of the assessment is to validate USSOCOM SOFBIS are taught/met IAW USSOCOM approved tasks, conditions, and standards. The JSAT validates the appropriate level of uniformity and consistency across the Components; it facilitates Component training collaboration, and upon the successful completion of the assessment, recommends course certification to the JSD-J7 Director.

4-2. Specific Responsibilities.

a. J7-T&E-RA will provide JSAT leadership and oversight responsible for:

(1) Completing the coordination packet for the COS to task the Components for JSAT SME support.

(2) Coordinating with Service and LC training representatives and Component SO Financial Management training course personnel to facilitate JSAT assessment visits.

(3) Coordinating with JSAT members prior to scheduled visits.

(4) Providing a detailed agenda and the assessment checklist for JSAT assessment visits.

(5) Providing an onsite JSAT program pre-brief and JSAT assessment post-brief to the training course staff.

(6) Providing leadership and direction to facilitate the interaction between the JSAT and Service/USSOCOM Component SMEs.

(7) Resolving all issues and ensuring compliance with the JSAT Program prior to any certification recommendation to USSOCOM JSD-J7 Director.

(8) Preparing and staffing the certification package for USSOCOM JSD-J7 Director's approval.

(9) Distributing USSOCOM JSD-J7 approved certification memorandum to Service and Component training representatives and training course staff.

(10) Maintaining JSAT certification documentation.

b. As LC, USASOC will conduct the assessment and validation of each SOF SL, MFF, and MTM Course. At a minimum this will consist of:

(1) One SOF SL, MFF, or MTM SME, Instructor, and or Course Development or Doctrine representative.

(2) Other SMEs as determined by the LC.

c. LC JSAT members are responsible for:

(1) Conducting daily assessment of USSOCOM approved SOFBIS tasks, conditions, and standards.

(2) Submitting a weekly report via email to the J7-T&E-RA POC on the individual task assessments completed and other relevant issues.

(3) Validating the course COI/POI meets the agreed upon SOFBIS within this manual.

(4) Providing a formal recommendation for certification/decertification to the Chief, J7-T&E-R no later than 20 days upon completion of JSAT assessment.

(5) Maintain JSAT certification documentation.

d. Service and CC supporting SMEs will assist USASOC in the assessment and validation of each SOF SL, MFF, and MTM Course and are responsible for accomplishment of the daily assessment tasks assigned by the JSAT leader; and, providing a daily brief back to the JSAT leader on assessments made.

(1) Coordination between all participants is required to determine the best and least intrusive time frame for the assessment.

(2) All SMEs are expected to actively participate and provide input to the comprehensive JSAT post-brief provided by the USSOCOM J7-T&E-RA representative on the last day of the course.

CHAPTER 5

SAFETY, PLANNING, COORDINATING AND CONDUCTING AIRBORNE OPERATIONS TRAINING

5-1. General. This Chapter outlines conditions, planning steps, and coordination requirements necessary for conducting successful airborne operations training by all USSOCOM MSCs. Individual and unit proficiency in the technical and operational aspects of airborne operations is critically important to mission accomplishment and safety of personnel. To that end, basic and advanced refresher training is necessary for all personnel assigned or attached to units within USSOCOM.

5-2. Guidelines.

a. Airborne operations training are dangerous and demanding; however, conducting tough, realistic training while managing and mitigating risk are compatible endeavors. Success is defined as the implementation of sound risk management principles that maximize realism and combat effectiveness while identifying and mitigating risk. Leaders, cadre, and trainees are equally responsible for immediately identifying and reporting unsafe training situations and environments. Reporting responsibilities for airborne operations training safety are addressed in Service/USSOCOM MSC publications and Section IV of [USSOCOM D 385-1](#), *Joint Safety Program*, 31 May 2017.

b. Safety considerations pertaining to AT profiles, environmental considerations, mission hazards, individual protective equipment, and physical and medical considerations, are too numerous and situation dependent to address comprehensively in this manual. Specific questions about safety should be addressed in Service/USSOCOM MSC publications, local SOP, or by contacting the LC for airborne operations listed in this manual.

c. DOD issuances relating to safety can be found on the following website:
<http://search.usa.gov/search?utf8=%E2%9C%93&affiliate=dodissuances&query=safety&commit=Search>

5-3. Safety.

a. Safety is an integral part of all training. CDRs will fully integrate safety considerations and risk management into all airborne operations. The Airborne CDR/OIC/NCOIC and the supporting aviation unit should have separate signed risk assessments for all AT events.

b. Each airborne operation will have its own risk assessment unique to the scheduled airborne operation, and will be reviewed by the Airborne CDR/OIC/NCOIC to ensure the entire operation has been properly assessed for risk. Following the risk assessment, the Airborne CDR/OIC/NCOIC will develop and implement control options to mitigate or eliminate risks for each hazard. The risk control options selected should have the maximum focus on mission accomplishment and the least possible adverse impact on realism.

c. After all appropriate controls have been implemented to reduce or eliminate risks; the residual risk (i.e., remaining risk) will be determined using ORM tools. An overall risk level will be assigned to the training event based on the most serious residual risk and approved by the respective level CDR as designated by Service/USSOCOM MSC publications.

d. Only Service/USSOCOM MSC “authorized for use” parachutes, cargo airdrop equipment, and parachuting ancillary equipment may be used during USSOCOM airborne operations. A Service/USSOCOM MSC “authorized for use list (AUL)” applies to select personnel parachute and cargo airdrop equipment, tools, systems, accessories, and components that have undergone design safety reviews, test and evaluation, or both to ensure jumper and airdrop safety. USSOCOM MSCs are authorized to use other Service common/Service approved COTS parachute systems and ancillary equipment provided the items are listed on a Service/USSOCOM MSC AUL. USSOCOM Component AULs can be found on the USSOCOM J7-T&E-TP Portal Page at: [mailto:https://sof.hq.socom.mil/sites/j7/te/3/5/M3503 Airborne Operations/10-REFERENCE_AND_SOURCE_DOCUMENTS](mailto:https://sof.hq.socom.mil/sites/j7/te/3/5/M3503_Airborne_Operations/10-REFERENCE_AND_SOURCE_DOCUMENTS).

e. Only DOD/USSOCOM MSC certified aircraft may be used during USSOCOM airborne operations. Military contracted civilian airdrop aircraft shall receive Federal Aviation Administration (FAA) Part 91 or Part 135 inspections per DOD Instruction (DODI) 4500.53, *DOD Commercial Air Transportation Quality and Safety Review Program* and [USSOCOM D 350-8, Commercial Aviation Oversight Procedures](#), 05 October 2010. Users have the responsibility to ensure inspections have been completed, are up-to-date, and aircraft tail numbers are listed on the “ParaTroop Air Carrier Listing” located on Mil-Suite at <https://www.milsuite.mil/book/groups/dod-commercial-airlift-division-amca>.

f. Operational infiltrations and airborne assaults are periodically conducted during hours of darkness and/or under adverse meteorological conditions during actual operations. USSOCOM Major Subordinate CDRs will orient their airborne operations accordingly, taking into account the proficiency of assigned personnel.

5-4. Planning/Coordination.

a. For general planning purposes, Air Mobility Command Aircrews have a 12-hour tactical crew day. Therefore, plan for 4-hours to be used on the ground for administrative duties and a maximum of 8-hours to be used from takeoff to completion of last tactical event until other capabilities and durations have been determined.

b. For even the most simple single-ship airborne operation, careful coordination between the user and the airlift provider will be addressed prior to mission execution. USAF liaison personnel and/or Tactical Airlift Liaison Officers will be utilized to facilitate joint planning when possible. Coordinate with supporting air assets to determine support capabilities and duration. Requests for marshalling and Arrival/Departure Airfield Control Group assistance from various installations will be forwarded to the appropriate coordinating staff office IAW applicable installation regulations.

c. Units are encouraged to develop checklists for use in planning airborne operations. The reverse planning sequence should be utilized when conducting airborne operations training.

Each airborne operation, to include “currency” jumps, will have designated training objectives (e.g., under canopy grouping techniques, accuracy toward assigned impact points (IPs), de-rigging in the prone position, and assembly procedures).

d. An Airborne CDR/OIC/NCOIC will be appointed for all airborne operations. The Airborne CDR/OIC/NCOIC, after consulting with the Primary JM (PJM), will make all decisions affecting the airborne operation such as weather, routes, flight time, etc.

e. In-flight rigging will normally be accomplished on all operations that have flight times of 3-hours or more. In-flight rigging may be planned for local operations; however, special mention of this requirement must be noted on the Joint Airborne/Air Transportability Training airlift request.

f. If conducting a multiple-ship operation, develop a cross-load plan to facilitate assembly on the DZ and a bump plan in case an aircraft aborts.

g. In-country clearances, customs clearances, host nation (HN) support, and DZ/airspace approval from the HN are just a few examples of the required planning and coordination required to conduct airborne operations outside the continental U.S. (OCONUS) in support of MTTs, Joint Chiefs of Staff sponsored exercises, or Joint Combined Exchange Training events. Extensive planning and coordination is key to mission success.

5-5. Conducting Airborne Operations Training.

a. **SL, MFF, and Tandem Training.** USSOCOM MSCs are authorized to conduct SL, MFF, and MTM courses provided they are assessed and certified by USSOCOM. Training will be conducted at or above SOFBIS IAW this manual, the USSOCOM Major Subordinate CDR, and applicable Service/USSOCOM MSC publications.

(1) USSOCOM personnel qualified through a USSOCOM certified SL/SL JM course, MFF/MFF JM course, and a MTM course, will be recognized as USSOCOM qualified SL or MFF jumpers, and a qualified MTM by all USSOCOM MSCs.

(2) Graduates of other jump/JM and MTM courses not certified or recognized by USSOCOM are not authorized to conduct parachute operations within USSOCOM. See the list of certified/recognized jump/JM and USSOCOM and Service MTM courses in Chapter 3.

b. **Commercial Training.** Commercial contractors can be an important resource to help fulfill SOF airborne program training requirements. As an external source of new ideas, they provide additional skills, innovative techniques, and unique training ranges that integrate with lessons learned to advance USSOCOM MSCs enduring capabilities.

(1) Contracted SL and MFF instructors will either be prior service graduates of an authorized Service/USSOCOM approved basic SL/MFF course, SL/MFF JM course, or a U.S. Parachute Association (USPA) certified Accelerated Free-Fall Instructor.

(2) Contracted instructors can conduct Assistant Jumpmaster (AJM) duties (e.g., instruct airborne COI/POIs, conduct JMPI, instruct and verify a HARP, etc.). Contracted instructors can also conduct PJM duties, so long as the training is not under the control of an Airborne CDR/OIC/NCOIC and the contracted instructor does not exercise command authority. If the training is under the control of an Airborne CDR/OIC/NCOIC, then the PJM for the training shall be a uniformed service member or a current and qualified DOD civilian employee.

(3) Detailed guidance outlining specific rules and standards for commercial training services will be contained in USSOCOM MSC Statements of Work, publications, policies, and directives. Mandatory criteria for contracted services are as follows:

(a) In-house capability is not available and cannot be developed in time to meet the operational need.

(b) Development of in-house capabilities is not cost effective due to transient nature of the capabilities based requirement.

(c) Contracted training objectives will directly support SC METL core tasks, and missions.

(d) Contracted training will be achieved at an acceptable cost to the government. When feasible, blanket contracted services are preferred due to the relative “best value” to the government.

(4) The use of commercial training venues in any capacity is considered a military operation. The PJM will ensure jumpers follow the appropriate safety and procedural requirements IAW this manual and applicable Service/USSOCOM MSC publications.

c. Permissive Parachuting (SL Only). Request for permissive parachuting will be processed IAW applicable Service/USSOCOM MSC publications.

d. Authorized Use of High Definition Series Video Cameras. Subordinate CDRs are authorized to designate, in writing, SL, MFF, and MTM qualified personnel to use high definition video cameras during airborne operations. High definition video cameras assist in documenting all actions during each phase of an airborne operation from station time to drop time, and can also be used for after action reports, lessons learned, mishap documentation, jump refusals, red light procedures, SL injuries, reserve activations, and hypoxia. The following stipulations will be adhered to as a minimum:

(1) The only high definition series video cameras authorized for use on USSOCOM airborne operations will be government purchased and controlled by either the air operations office or the supporting parachute rigging facility/loft.

(2) All video will be classified as “For Official Use Only” and will not be released to outside media without local Public Affairs approval.

(3) The designated air operations office or supporting parachute rigging facility/loft will ensure designated personnel receive a safety class on camera awareness, operations, and the proper mounting hardware, location, and procedures.

e. **Joint Airborne Operations Training.** USSOCOM MSCs may use each other's airborne and ancillary equipment provided they are qualified, authorized, and trained. Prior to participating in joint airborne operations training, the host unit will ensure the individual(s) is authorized by their own unit, and qualified in either SL, MFF or Tandem operations and confirm they are familiar with the specific equipment and sufficiently trained in its use to ensure a safe operation. Personnel on official travel whose purpose of travel is outside the scope of the airborne operation must have the "requirement to jump" annotated in the remarks column of their Temporary Duty (TDY)/Temporary Additional Duty (TAD) orders IAW the DOD Financial Management Regulation (FMR) 7000.14R, Volume 7A, Chapter 24 and DODI 1340.09. Other documentation such as orders, letter from home station, etc. will not substitute for the required annotation on the TDY/TAD orders.

5-6. Specific Responsibilities.

a. **The Airborne CDR/OIC/NCOIC.** The Airborne CDR/OIC/NCOIC has overall responsibility for airborne operations coordinated and executed by the unit and designates key personnel for each airborne operation. The Airborne CDR/OIC/NCOIC must be knowledgeable and technically proficient in all types of airborne operations. The Airborne CDR/OIC/NCOIC can also be the PJM.

(1) Key personnel are the JM (PJM, AJM), and Safety), Oxygen Safeties (see Chapter 8), DACO, DZSO/DZ Support Team Leader (DZSTL), Malfunction Officer (MO), and Medical Support. Each key personnel can delegate their authority, but they cannot delegate their responsibilities and remain responsible for actions and decisions made by unit personnel.

(2) Expanded duties, qualifications, and appointment are described in applicable Service/USSOCOM MSC publications.

b. **The JM.** Every USSOCOM SL and MFF airborne operation will have a minimum of two current and qualified JMs participating in the airborne operation from start-to-finish. Conducting JM duties for MFF operations does not qualify JMs for SL operations and vice versa. For MFF operations, the minimum is one PJM and one AJM for each aircraft. For SL operations, the minimum is one PJM and one Safety for each paratroop door or ramp in use for USAF aircraft. JM requirements non-USAF aircraft, non-standard aircraft, in-flight rigging, or rotary-wing aircraft are described in applicable Service/USSOCOM MSC publications. JMs are not authorized to wear a Service approved non-standard COTS RAPPs while conducting SL JM duties unless the exit altitude exceeds 3,500 feet above ground level (AGL) and the JM meets the requirements in paragraph 10-5 below. SCs using contracted JMs will follow the guidelines in paragraph 5-5.b.(2) above.

(1) **The PJM.** The PJM is responsible for the conduct of all phases of the airborne operation and all airborne personnel and their associated equipment in the aircraft.

The PJM can delegate authority, but cannot delegate responsibility. Expanded duties, qualifications, and currency requirements are described in applicable Service/USSOCOM MSC publications. The PJM will always JMPI the AJM, no exceptions. For units that mandate two JMPIs, and only two current and qualified JMs are present, the PJM and AJM are authorized one JMPI.

(2) **The AJM.** AJMs are assistants to and report to the PJM. For SL and MFF operations, the AJM will assist in all aspects of the airborne operations from calling manifest, JMPI, actions in the aircraft, and spotting. The AJM will compute the HARP for MFF operations and compare results with the PJM. Expanded duties, qualifications, and currency requirements are described in applicable Service/USSOCOM MSC publications. The AJM will always JMPI the PJM, no exceptions.

(3) **The Safety.** Safeties are used in SL operations and also report to the PJM. The Safety's primary mission is to assist the PJM in the safe conduct of the airborne operation. Safeties will wear an approved helmet and Service approved/USAF emergency parachute or aircraft safety harness (monkey harness) while working in and around an open door or ramp. Safeties will inspect the parachute or safety harness for serviceability and be familiar with the deployment procedures of the type parachute worn. Expanded duties, qualifications, and currency requirements are described in applicable Service/USSOCOM MSC publications.

c. **The DACO.** The DACO is designated by the Airborne CDR and is the Airborne CDRs representative at the departure airfield (DAF). The DACO has coordination responsibility with aircrew for the loading of personnel, equipment, and supplies into the aircraft. The DACO also provides the PJM with changes to station time and the overall operational plan, current DZ weather, airfield crossing procedures, and the aircraft parking plan. Additionally, the DACO is the Airborne CDRs liaison with the unit's air operations office. The unit's air operation office will direct the DACO in the execution of out loading personnel from the DAF, reporting procedures for the airborne operation, and the proper use and cleanup of the facility. Complete DACO duties, responsibilities, and prerequisites are found in applicable Service/USSOCOM MSC airborne publications.

d. **The DZSO/DZSTL.** For the purpose of this manual, the DZSTL and DZSO are interchangeable. All USSOCOM airborne operations will have a DZSO/DZSTL on the DZ. The DZSO/DZSTL controls the actions and is responsible for the safety of all personnel on the DZ. No personnel or equipment is dropped if the DZSO/DZSTL is not physically on the DZ.

(1) A DZ survey is required for all airdrop training missions involving USSOCOM personnel and equipment. Though using the [AF Form 3823, DZ Survey](#) is preferred, it is not required for a tactical survey. When time or situation prevent the completion of a full DZ survey, such as to support highly mobile ground forces, the using unit must at least complete a tactical DZ survey IAW applicable Service/USSOCOM MSC publications. If a tactical survey is not used, the DZSO ensures an AF Form 3823 is available, current (5 years), and the DZSO has read it along with all applicable publications and SOPs. Completed DZ surveys are located on the "Talon Point" website at <https://Gz-db.org>.

(2) The DZSO will conduct a physical inspection of the DZ to confirm the current status and determine if a follow on assessment of the DZ is required. Expanded DZSO/DZSTL duties, qualifications, and currency requirements are described in applicable Service/USSOCOM MSC publications.

e. **The Parachute MO.** The Parachute MO is a member of the DZSO/DZSTL team and is responsible for recording key aspects of every unit jump such as; the type of aircraft, the type of parachute, the number of jumpers exiting, and watching for any parachute malfunctions/incidents (serious injury) during exit and decent, and landing.

(1) The MO will enlist as many personnel as needed to watch for parachute malfunctions/incidents and promptly and accurately investigate parachute malfunctions/incidents as they occur IAW AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D. The MO will determine if a parachute, airdrop item, or component of an airdrop system functioned as it was intended or designed.

(2) Any malfunction/incident (major injury) involving a jumper must be reported. The MO will record every airdrop activity on a DD Form 1748-2, **Joint Airdrop Malfunction Report**, consolidate all airdrop activity reports on a monthly basis on a DD Form 1748-3, **Joint Airdrop Summary Report**, and push the airdrop activity reports to their respective chain of command for submission to the U.S. Army Quartermaster School (USAQMS) web site at:

<https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fbook%2Fgroups%2Fairdrop-malfunction-and-safety-analysis-review-board> as required by AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D. MO qualifications, duties, and responsibilities are also described in AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D and applicable Service/USSOCOM MSC publications.

f. **Medical Support.** All medical personnel in support of a specific airborne operation are under the operational control of the DZSO/DZSTL, but perform medical duties under direct supervision of the senior medical officer/NCOIC present. No personnel are dropped if medical personnel are not on the DZ. Expanded policies, procedures, and required minimal medical equipment governing medical support requirements are described in applicable Service/USSOCOM MSC publications.

g. **Positive Communications.** Positive communication is used to ensure a safe and efficient airborne operation. It is imperative that SCs establish an accurate and smooth flow of information. The primary means of communicating with airdrop aircraft will normally be by radio communications. Positive communication policies and procedures will be IAW applicable Service/USSOCOM MSC publications.

CHAPTER 6

CONDUCTING AIRBORNE OPERATIONS AND TRAINING WITH FOREIGN FORCES

6-1. General.

a. The purpose of combined airborne operations with foreign military forces is to foster familiarity with procedures, enhance interoperability, and promote goodwill, rapport, and camaraderie through SOF military to military relations. This chapter provides guidance for USSOCOM Major Subordinate CDRs to safely conduct combined airborne infiltration/exfiltration (INFIL/EXFIL) operations and training.

b. To function effectively, personnel supporting a combined training program must be aware of a variety of guidelines. These include provisions of applicable Status of Forces Agreements (SOFA) as well as restrictions on the transfer of equipment, TTPs, and other types of assistance that may be requested. Because many military activities take place within the HN, applicable legal guidelines may include those of the HN government and the status of U.S. personnel while in country. Accordingly, a country law briefing, cultural orientation, and review of any international agreements affecting SOFA and foreign disclosure should be included in pre-mission preparation.

c. Combined AT and operations taking place within a HN require detailed planning and coordination. The senior U.S. SOF CDR or his designated representative will, as appropriate, integrate qualified U.S. personnel to assist in planning and conducting the training evolution. It is incumbent upon the senior U.S. SOF CDR to exercise discretion and sound judgment in conducting the training evolution(s) to ensure procedures used comply with applicable Service/USSOCOM MSC publications and this manual, are well coordinated, and understood by both USSOCOM and foreign personnel. Whether using U.S. or HN SOPs, equipment or DZs, the crawl, walk, run approach to rehearsals will ensure all personnel know and understand the procedures.

d. Combined airborne operations are often hampered by language barriers. English or the HN language may be used during combined training evolutions. If necessary, a translator will be assigned. All personnel must be able to communicate with the person in charge of the training evolution. Key commands and hand and arm signals must be briefed and understood by all participants regardless of language. All personnel involved must be able to communicate in the event of an emergency. EPs must be well coordinated and understood by both USSOCOM personnel and foreign personnel.

e. Prior to foreign participation in combined airborne operations in the U.S., the hosting unit will ensure the individual(s) are cleared with documentation by their country to participate in such operations. Documentation includes orders, letter from home unit, their embassy, or the local liaison.

f. Prior to U.S. participation in combined airborne operations in the HN, the senior U.S. SOF commander or his designated representative will request waivers as appropriate.

g. Theater CDRs will have the final approval authority for combined operations within their respective area of operations.

6-2. Specific Responsibilities.

a. Foreign Equipment.

(1) U.S. personnel may use foreign personnel parachute systems, provided they are trained in its use and the parachute system is serviceable IAW a similar U.S. military parachute system's TM. A qualified U.S. Parachute Rigger will compare the foreign parachute system to a "like-item" in the U.S. parachute inventory, and perform a technical/rigger-type inspection as outlined in the Preventative Maintenance Checks and Services procedures IAW the applicable Service/USSOCOM MSC parachute system publication. The senior U.S. SOF CDR or his designated representative will ensure SL or MFF qualified U.S. personnel, who are not familiar with the HNs parachute systems, receive sufficient training on the type of parachute systems used in order to ensure a safe operation. A senior U.S. JM or Parachute Rigger will inspect the parachute systems prior to the jump. The senior U.S. SOF CDR or his designated representative is the delegated approval authority for use of foreign personnel parachute systems.

(2) Foreign Nationals (FN) may use U.S. personnel parachute systems provided they are trained in its use according to U.S. standards or the FNs country standards. The senior U.S. SOF CDR or his designated representative will ensure SL or MFF qualified FNs, who are not familiar with U.S. parachute systems, receive sufficient training on the type of parachute systems used in order to ensure a safe operation. The senior U.S. SOF CDR or his designated representative is the delegated approval authority to allow FNs to use U.S. personnel parachute systems.

b. Foreign Aircraft.

(1) USSOCOM personnel may jump from foreign aircraft when conducting combined or unilateral operations. When the foreign CDR of airborne forces and the senior USSOCOM JM concur, and when either the senior U.S. SOF CDR or his designated representative agrees, USSOCOM members on active parachute status may use foreign military aircraft as an authorized jump platform. U.S. personnel will utilize the foreign jump procedures, if safe and practical, when using foreign aircraft. Deviations from the foreign jump procedures will be coordinated and approved by the foreign aircraft crew and the senior U.S. SOF commander on site prior to jumping.

(2) FNs may jump from U.S. aircraft when conducting combined airborne operations using U.S. procedures. Unilateral foreign airborne operations may be conducted in U.S. aircraft. Deviations from standard U.S. airborne operations procedures when conducting foreign unilateral operations must be coordinated and approved by the Aircrew that will fly the mission.

(3) Combined airborne operations require detailed planning and coordination and are often hampered by language barriers. The senior U.S. SOF CDR or his designated representative will ensure the procedures used are well coordinated and understood by both USSOCOM and foreign personnel.

If the senior U.S. SOF commander or his designated representative believes the coordination and understanding of the operation are inadequate, or doubts the safety of the operation, he has the authority and responsibility to prevent his unit from participating.

c. DZ Operations.

(1) U.S. aircraft require a DZ survey. If a foreign DZ survey meets U.S. standards and can be translated, the foreign DZ survey may be used for foreign unilateral airborne operations. For U.S. unilateral or combined operations using U.S. aircraft, the DZSO will at least confirm the foreign DZ survey, with an on-site inspection, and the Aircrew will conduct a safety-of-flight survey. Preferably, a DZ survey, IAW AFI 13-217, will be conducted prior to the operation.

(2) Foreign aircraft may also require a DZ survey IAW their own procedures. At the discretion of the senior U.S. SOF commander or his designated representative, an on-site inspection of the DZ will be conducted to ensure it meets U.S. safety requirements IAW AFI 13-217 prior to USSOCOM personnel jumping on the DZ.

(3) The DZ party will consist of U.S. personnel or U.S. and foreign personnel. If U.S. personnel are the DZSO/DZSTL, they will meet the DZSO/DZSTL requirements IAW Service/USSOCOM MSC publications and this manual. When using U.S. aircraft, the Aircrew must approve dropping U.S. personnel on all foreign DZs. The senior U.S. SOF CDR or his designated representative will ensure foreign DZs, at a minimum, consist of a qualified and current DZSO, medical personnel, and a MO. The senior U.S. SOF commander or his designated representative is the approving authority for foreign DZ use, but also has the responsibility to prevent U.S. personnel from jumping if there is any condition he believes makes the DZ unsafe.

6-3. Foreign Disclosure. CDRUSSOCOM is the DOD proponent for release of SO TTPs. All planned disclosures require coordination with the USSOCOM FDO.

a. Foreign disclosure planning will be incorporated into all combined INFIL/EXFIL training events. Expect combined airborne operations training with FNs to require some level of sharing USSOCOM MSC TTPs. SOF INFIL/EXFIL joint TTPs are advanced training, sensitive in nature, and can only be disclosed IAW USSOCOM MSC, USSOCOM Foreign Disclosure publications. All SC briefing slides and text must be approved by SC FDOs prior to presentation/release to a foreign individual or audience. Commitments shall not be expressed or implied, and no disclosures in support of the training evolution shall be made pending the required disclosure decision.

b. Disclosure authority delegated by [USSOCOM D 550-2](#), *U.S. Special Operations Command Foreign Disclosure Program and Disclosure of Information to Foreign Nationals*, 08 January 2018, pertains only to USSOCOM originated/controlled classified military information that meets the limitations and disclosure criteria stipulated in National Disclosure Policy (NDP)-1.

Disclosure authority resides with designated FDOs. If operationally deployed, TSOC and JSOC CDR-appointed FDOs may authorize disclosure of information IAW NDP, USSOCOM Directives, and Service guidance.

c. All persons/units are required to be knowledgeable of and responsible for complying with Foreign Disclosure regulations in [USSOCOM D 550-2](#). USSOCOM MSCs/units will provide training and guidance to personnel concerning the Foreign Disclosure Program. Address all questions to: USSOCOM OPR – FDO: J2-FDO, DSN: 299-7755/3123.

CHAPTER 7

ADMINISTRATION PROCESSES AND RESOURCES

7-1. Administration Processes.

a. **Realistic Military Training (RMT).** RMT is defined as DOD training conducted off federal property using private or non-federal public property and infrastructure. Because RMT can develop into a high visibility event, the Secretary of Defense and Joint Staff have issued DOD policy guidance that establishes uniform planning and approval procedures for RMT events conducted in civilian settings in the Continental U.S. (CONUS), including its territories and possessions. It is the responsibility of individuals planning, approving, and conducting RMT to be thoroughly familiar with DODI 1322.28 and [USSOCOM D 350-27](#).

(1) When conducting airborne operations on other DOD installations, USSOCOM MSCs will comply with host installation regulations, directives, and policies. If a conflict exists between the host installation regulation, directive, or policy, and this or other USSOCOM MSC/USSOCOM doctrine, the affected USSOCOM MSC will notify their command HQ through the SC's chain-of-command for resolution.

(2) When conducting airborne operations off DOD installations, USSOCOM MSCs will comply with DODI 1322.28, Realistic Military Training Off Federal Real Property and [USSOCOM D 350-27](#).

b. **Waiver.** Training waiver authority is granted to Component and Sub-unified CDRs. It may be delegated to the appropriate Subordinate CDRs. Waivers are applicable only to the hazards and exposures specified in the request. Waivers will not be interpreted as applying to other operations, locations, conditions, equipment, or units not specifically mentioned in the initial request, enclosures, and endorsements. Waivers are generally granted for a specific training event such as an exercise, or short period of time – approximately 30 days, or pending cancellation or correction of the waived condition or equipment. Notification of waivers granted for training will be reported, prior to training, to CDRUSSOCOM, ATTN: USSOCOM J7-T&E, 7701 Tampa Point Boulevard (Blvd), MacDill Air Force Base (AFB), Florida 33621-5323, and to the Operations Directorate of USASOC as the LC at; CDRUSASOC, 2929 Desert Storm Drive, Fort Bragg, North Carolina 28310-5200, ATTN: USASOC G-37, Special Skills Branch.

c. **ETP.** Training ETP authority is the USSOCOM COS. An ETP permits a long-term departure from safety and operational standards and directives for compelling reasons. Long-term is defined as the length of deployment, or 6 months or more. ETPs will not be interpreted as applying to other operations, locations, conditions, equipment, or units not specifically mentioned in the initial request, enclosures, and endorsements. ETPs will be reviewed every 2 years at a minimum. Each ETP request will be forwarded prior to conducting training to USSOCOM COS, ATTN: USSOCOM J7-T&E, 7701 Tampa Point Blvd, MacDill AFB, Florida 33621-5323, and to the USASOC Operations Directorate as the LC. For mailing address, see paragraph 7-1.b., above.

d. **USSOCOM Joint Training Policy Change Procedures.** CR will be processed and staffed IAW [USSOCOM R 25-31](#), *Official Publications*. Additionally, refer to [USSOCOM D 350-1](#) for detailed procedures which ensure CRs are fully staffed across the SOF Enterprise. CRs involving a non-USSOCOM or Service publication referenced by the SOF training program will follow the procedures prescribed in that publication. USSOCOM J7-T&E and the LC will be notified of the CR in order to determine its effect, if any on SOF training, and provide comment or endorsement, if required. The J7-T&E is the POC for CRs affecting this manual.

7-2. Resources.

a. **Authorized Supplements.** Supplementation to this manual is permitted. USSOCOM MSCs are authorized and expected to supplement this manual to clarify and amplify procedures that address unique requirements and operational environments. When USSOCOM and DOD issuances conflict, DOD issuances takes precedence. When Service/USSOCOM MSC publications and USSOCOM publications conflict, USSOCOM publications take precedence. USSOCOM MSC supplements can add to but will not be less restrictive than this manual.

b. **Decentralized Printing of Publications.** The Publications Control Officers at the MSCs not located at HQ USSOCOM will:

- (1) Secure adequate copies of this manual for distribution to their subordinate elements.
- (2) Maintain a copy of this manual on file for reprints to provide resupply when required.

(3) HQ USSOCOMs publication page is located on the HQ COS Command Support portal at: <https://sof.hq.socom.smil.mil/sites/socs/SJS/Publications/default.aspx>.

c. **Inclusive Publications.** This is not an all-inclusive manual and the references listed above may not be an all-inclusive list of every Service/USSOCOM MSC airborne publications. CTLs contained in Chapter 3 of this manual are the common baseline tasks for conducting airborne operations training at USSOCOM certified SL, MFF, and Tandem courses. It is the responsibility of the individual user to ensure they are using the most current Service/USSOCOM MSC publications with all applicable changes when planning/conducting airborne operations. The complete list of references used in this manual is located in the Glossary, Section III.

7-3. Reports. USSOCOM MSCs will follow the airborne operations reporting procedures required by AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D, Joint Airdrop Inspection Records, Malfunction/Incident Investigations, and Activity Reporting, and their respective command reporting publications to manage and account for monthly parachute jumps and parachute incident/mishap reporting. This includes reports that reflect safety and equipment status. Negative reports will also be reported.

7-4. Policy on Jump Waiver Requirements for Pay. USSOCOM MSCs shall adhere to the DOD FMR 7000.14-R, Volume 7A, Chapter 24, Incentive Pay – Hazardous Duty Other Than Aerial Flight, and DODI 1340.09, Hazard Pay (HzP) Program when establishing policies and procedures for Hazardous Duty Incentive Pay (HDIP) entitlements for parachuting. Both publications provide guidance in establishing and maintaining control of jump waivers to DOD guidelines for both SL and MFF entitlements. The unit's "Jump Log Custodian" will maintain control of jump waivers IAW DOD FMR 7000.14-R, Volume 7A, Chapter 24 and DODI 1340.09 guidelines.

7-5. Administrative Requirements. All USSOCOM MSCs will maintain accurate individual qualification training records, which reflect each individual's eligibility to participate in airborne operations and receive HDIP for parachuting. CDRs at all levels will ensure individuals receiving HDIP are qualified for each month they receive HDIP. Failure to maintain accurate qualification training records, or to ensure all personnel receiving HDIP are qualified to receive HDIP, may result in administrative action. For this reason, every level of command will appoint an individual, commonly known as a "Jump Log Custodian", to maintain and periodically review individual jump logs/qualification training records. Ensure the Jump Log Custodian is intimately familiar with the DOD FMR 7000.14R, Volume 7A, Chapter 24 and DODI 1340.09.

a. HDIP for Parachuting Entitlement: Eligibility to receive HDIP for parachuting is as follows:

(1) Must be a qualified SL or MFF jumper.

(2) Must be in a SL or MFF coded billet on the unit manning document.

(3) Must have current hazardous duty, aeronautical, or permanent change of station orders with a statement indicating "above type duty involves parachute jumping as an essential part of military duty".

(4) Must maintain a current status (IAW DOD FMR 7000.14R, Volume 24, Chapter 24 and DODI 1340.09).

b. Jump Log/Qualification Training Records. All SL and/or MFF qualified personnel assigned or attached to a USSOCOM MSC performing SL or MFF jumps will report to their new command and in-process with the Jump Log Custodian by providing copies of their personal qualification training records, to include previous hazardous duty orders and a chronological history of previous jumps (jump log). If the individual cannot produce his jump log/qualification training records, they will not be allowed to participate in any airborne operations until such records are retrieved or each required qualification is verified by the command.

c. Jump Log Custodian Requirements. CDRs at all levels will appoint a Jump Log Custodian responsible for maintaining individual jump logs/qualification training records for each qualified SL and MFF jumper assigned. The Jump Log Custodian will maintain, at a minimum, the following qualification training records:

- (1) HDIP orders for either SL or MFF parachuting.
- (2) Memorandum signed by the servicing medical facility (SL) or Flight Surgeon (MFF) attesting a physical was completed and is current.
- (3) Current AF Form 1274, **Physiological Training Card**, current AF Form 702, **Individual Physiological Training Record**, or USASOC Form 4080, **Reduced Oxygen Breathing Device Physiological Training**.
- (4) Individual jump log (SL and MFF). Depending on the SC's Service jump tracking requirements, an individual's jump log may be computer based or hand carried and turned in to the Jump Log Custodian.
- (5) Copy of Basic Airborne Course (SL) and MFF Basic Course diploma, if MFF qualified.
- (6) Copy of SL and MFF JM Course diploma, if JM qualified.
- (7) Applicable jump rule waivers (Rule 3 or 4) IAW DOD FMR 7000.14R, Volume 7A, Chapter 24 and DODI 1340.09 (if applicable).
- (8) Basic airborne refresher/JM refresher training memorandum(s).
- (9) MFF stand down recertification training memorandum for those who graduated from a MFF course prior to 01 October 2015.
- (10) Water survival qualification/wet silk/parachute disentanglement training memorandum for deliberate water jumps.
- (11) HDIP recoupment memorandums (if applicable).
- (12) A roster of all SL and MFF JMs indicating currency for JM, AJM, Safety, JM refresher, DZSO or date of DZSO course completion.
- (13) Attendance at the annual MFF operational pause.
- (14) A copy of the last USSOCOM Inspector General or Staff Assistance Visit results, if applicable.

CHAPTER 8

AIRDROP OF EQUIPMENT

8-1. General. Cargo parachutes, airdrop containers, platforms, tie-downs, and related air items that facilitate the delivery of supplies and equipment from an aircraft in flight listed on a Service/USSOCOM MSC AUL will be the only airdrop equipment authorized for use. These items are approved on specific aircraft and have been tested and approved by DOD for Service/USSOCOM use and are identified on a Service/USSOCOM MSC AUL.

a. Procedures and restrictions for door bundles, heavy equipment, and container delivery systems (CDS) are located in TM 4-48.02/Marine Corps Reference Publication (MCRP) 4-11.3J/Naval Sea Systems Command (NAVSEA) SS400-AB-MMO-010 REV 1/Technical Order (TO) 13C7-1, *Airdrop of Supplies and Equipment: Rigging Airdrop Platforms; Airdrop Derigging and Recovery Procedures; Reference Data for Airdrop Platform Loads* and TM 4-48.03/MCRP 4-11.3C/TO 13C7-1-11, *Airdrop of Supplies and Equipment: Rigging Containers*. Procedures and restrictions for other equipment not addressed in TM 4-48.02/MCRP 4-11.3J/NAVSEA SS400-AB-MMO-010 REV 1/TO 13C7-1, and TM 4-48.03/MCRP 4-11.3C/TO 13C7-1-11 will be included in applicable Service/USSOCOM MSC publications.

b. Airdrop guidance may be visual or self-contained and may be directed by either the Aircrew or the supported force. CARP airdrops are directed by the Aircrew based upon visual references. Self-contained airdrops are directed by the Aircrew using onboard navigation equipment, global positioning systems, adverse weather aerial delivery system, radar beacon, or ground radar delivery system. GMRS, VIRS, and JM Directed (JMD) airdrops are directed by supported forces.

c. If container loads are to be airdropped from bomb shackles (wing load), rotary wing doors, bomb bay, or the doors of utility airplanes, they must be rigged using parachutes equipped with breakaway SLs. Jumpers will not be dropped at the same time as bundles when bundles are rigged for release from a bomb shackle.

d. A-7A, A-21, and CDS rigged with low-cost low-altitude cargo parachutes, G-12 with 68-inch pilot chute, or G-14 cargo parachutes, with breakaway or non-breakaway SLs may be airdropped from the ramp or tailgate of cargo and transport type aircraft with jumpers following after a three-second delay between the cargo and the first jumper.

NOTE: Refer to the specific aircraft manual or applicable Service/USSOCOM MSC publications for any limitations on cargo container weight, dimensions, or SL configuration.

e. Combat Rubber Raiding Craft (CRRC) loads may be dropped followed by jumpers with the 15-foot extraction parachute packed in a main parachute deployment bag (d-bag) IAW TM 4-48.04/MCRP 4-11.3P/NAVSEA SS400-AD-MMO-010/TO 13C7-51-21, *Airdrop of Supplies and Equipment, Rigging Loads for Special Operations*.

f. Container loads with breakaway SLs are not rigged for airdrop from the troop door (side door) of cargo and transport type aircraft. For paratroop door drops, loads followed immediately by jumpers will be rigged with cargo parachutes having non-breakaway SLs IAW the applicable publication for the type cargo parachute used. Each SL must have a drogue attached as outlined in the parachute's TM. When using the T-10 series cargo parachute or the 68-inch pilot parachute for the paratroop door load, the d-bag serves as the drogue.

g. When conducting combination airdrops in which personnel follow cargo out of the aircraft, unit CDRs will implement controls designed specifically to mitigate the risks associated with this hazard. As an example; when the MV-22 Cargo Release System (CRS) releases the cargo load, the CRS falls to the deck of the aircraft, presenting a tripping hazard to follow on jumpers as they move towards the ramp to exit the aircraft.

h. If jumping from aircraft with vehicles and pallets onboard, ensure pallet spaces and rollers near doors or ramps are clear and equipment or vehicles do not interfere with the jumpers or anchor line cables.

i. Refer to the applicable rigging manuals and aircraft guidance publications for cargo airdrop minimum and maximum altitudes.

8-2. Reporting Requirements. Any malfunction or incident of an airdrop load or CDS bundle must be reported. A malfunction is defined as "the failure of an airdrop item or component of an airdrop system to function as it was intended or designed," whether the equipment failed because of human error or EP used. An airdrop incident is defined as any "procedure that prevented the successful completion of any planned airdrop operation." Malfunctions and incidents include, but are not limited to the following: inadvertent activation of the cargo or extraction parachutes, cigarette roll, canopy entanglements, inadvertent EAAD problems, unintended hazardous landings, equipment issues, and property damage.

a. A DD Form 1748-2 will be used to report airdrop malfunctions and incidents. The MO/Aircrew initiates this report. The completed DD Form 1748-2 must be submitted within 24-hours and will be reviewed by a unit SME prior to submission to the USAQMS. NSW and MARSOC malfunctions and incidents must be reported through the Naval Safety Center via the Web Enabled Safety System. The Naval Safety Center will submit a DD Form 1748-2 to the USAQMS. AFSOC will submit the DD Form 1748-2 to the functional chain of command and to HQ USAF/A3O-AS via email. HQ USAF/A3O-AS will consolidate data and send to the USAQMS. Initially, timeliness is more important than detail, so do not delay initial reporting to collect all requested information.

b. All USSOCOM MSCs involved in the airdrop of supplies and equipment are required to submit monthly airdrop activities using the DD Form 1748-3 located on the USAQMSs web site at: <https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fbook%2Fgroups%2FAirdrop-malfunction-and-safety-analysis-review-board>. Subordinate reports will be consolidated through respective upper echelon commands IAW AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D.

CHAPTER 9

STATIC LINE (SL) OPERATIONS

9-1. General. This Chapter contains policy guidance for basic and advanced SL training TTPs. It is intended to standardize the duties and responsibilities of individuals responsible for conducting SL airborne operations. The Airborne CDR/OIC/NCOIC, PJM, AJM, Safeties, DZSO/DZSTL, medical personnel, and MO occupy key positions in airborne operations. Applicable Service/USSOCOM MSC publications contain comprehensive procedures to conduct SL operations as well as the initial training and qualifications of personnel designated to occupy these critical positions. USSOCOM MSCs will not deviate from this chapter without an approved waiver or ETP. During planning, the Airborne CDR/OIC/NCOIC will review this Chapter along with other applicable Service/USSOCOM MSC publications prior to conducting the airborne operation.

9-2. SL Training Requirements. Graduates of a basic SL course recognized or certified by USSOCOM, or graduates who have completed the SL portion of the NPC effective December 2003 can participate in USSOCOM SL operations. Partner Nation personnel must have completed a USSOCOM certified COI/POI or have been qualified by their own country. SL qualified personnel will meet the SL proficiency training described in applicable Service/USSOCOM MSC publications and this manual.

9-3. SL Parachute Systems. The T-11, MC-6, and MC-7 Personnel Parachute Systems are the primary SL parachutes system used in SOF SL line airborne operations. The T-11, MC-6, and MC-7 are highly portable systems that include a main and reserve canopy assembly, d-bag, pack tray, harness assembly, risers, and a universal SL with curved pin. They are capable of supporting 400 pounds (lbs.). The MC-7 is used by USN and USMC personnel only and the T-11 is used by USASOC personnel only. The T-11 complete system weight is 53 lbs., the MC-6 complete system weight is 42 lbs., and the MC-7 complete system weight is 43.8 lbs. The T-11 main canopy is non-steerable and the MC-6/7 main canopy is steerable. There are several double bag SL (DBSL) systems available in DOD that has similar capabilities. Refer to applicable Service/USSOCOM MSC publications for DBSL system characteristics and use.

9-4. SL Parachute Requirements. Packing, maintenance, and currency requirements for SL parachute systems, to include DBSL parachutes systems are at the discretion of USSOCOM Major Subordinate CDRs or their designated representatives.

a. SL parachute systems will be inspected, maintained, and packed by qualified personnel IAW applicable Service/USSOCOM MSC publications or manufacturer's published guidance.

b. Personnel authorized to perform rigger checks on SL parachute systems and Parachute Rigger proficiency/currency will follow applicable Service/USSOCOM MSC publications.

NOTE: Only MFF DBSL qualified JMs can JMPI individuals wearing a DBSL RAPPs.

9-5. Key Personnel Responsibilities.

a. Each aircraft dropping SL jumpers will have one JM and one Safety for each paratroop door or ramp in use. When jumping from Utility Helicopter series aircraft, airborne operations may be conducted from both doors using one JM and one Safety. Additional JMs and Safeties required is usually aircraft specific. PJM, AJM, and Safety personnel will be designated as applicable. USSOCOM MSCs will not decrease the required number of JMs or Safeties for the type of aircraft being used for convenience.

b. While the PJM, AJM, or any other qualified SL JMs may accomplish a variety of tasks, the Airborne CDR/OIC/NCOIC is ultimately responsible. Detailed key personnel responsibilities and duties are described in applicable Service/USSOCOM MSC publications.

9-6. Individual Equipment.

a. Individual CE and weapons are attached to the jumper in several configurations. They can be exposed, placed inside containers, or a mix of the two. Applicable Service/USSOCOM MSC publications describing the attachment of individual equipment will not supersede this manual or deny the jumper the ability to activate his reserve, conduct the five points of performance, or execute EP.

b. The PJM is responsible for ensuring all jumpers receive a JMPI to include equipment not immediately attached to the jumper. Circumstances may warrant delaying the attachment of equipment until a pre-designated time later in the operations timeline. The Airborne CDR/OIC/NCOIC must consider individual and unit proficiency when conducting the command risk assessment. When equipment is attached and secured to the jumper after the initial JMPI, a member of the JM team will inspect the equipment attaching points.

c. If jumping from an aircraft with ample room and carrying equipment onboard, equipment will be attached with the aircraft doors/ramp closed, usually after the 20-minute time warning or the command of "STAND-UP" has been given. The PJM will ensure each jumper's equipment is properly attached and secured, and attaching points, tie-downs, and lowering lines are inspected by a member of the JM team. The PJM and AJM will inspect each other.

d. If jumping from an aircraft with the doors removed or limited cabin space, jumpers will be fully rigged (equipment attached) and inspected (JMPI) by a JM prior to loading the aircraft.

e. Jumpers must wear military-approved personal flotation devices (PFD) whenever the planned flight path is over open bodies of water large enough to be unavoidable with a maneuverable parachute for one-third or more of the distance under canopy. Jumpers must also wear PFDs when the DZ is within 1,000 meters of a body of water. A body of water is defined as water four feet deep or deeper and 40-feet long or longer. Jumpers must wear enough flotation to be positively buoyant.

9-7. Aircraft and Jump Altitudes.

a. Refer to applicable Service/USSOCOM MSC publications for specified procedures for specific standard and nonstandard aircraft.

b. **Non-Standard Aircraft.** For non-standard civilian contracted aircraft not listed on the “ParaTroop Air Carrier Listing” located on Mil-Suite at <https://www.milsuite.mil/book/groups/dod-commercial-airlift-division-amca>, units should contact airlift providers and recommend they seek authorization to fly/drop DOD personnel to ensure they meet current requirements for certification for use during airborne operations.

c. **USAF C-130 Aircraft.** IAW AF TO 1C-130A-9/TO 1C-130J-9/TO 1C-130(M)J-9, *USAF Series C-130 Cargo Loading Manual*, the maximum rigged weight of the jumpers for C-130 troop door operations is 400 lbs. when using the Towed Paratrooper Retrieval System (TPRS) and 250 lbs. without TPRS.

d. **Ramp Exits.** Jumpers may exit from the ramp of an approved aircraft using procedures described in applicable Service/USSOCOM MSC publications. For C-130 ramp exits, the total rigged weight will not exceed 325 lbs. IAW AFI 11-2-C-130 Vol. III, *C-130 Operations Procedures*. The SL line retrieval system has a maximum weight limit of 350 lbs. CDRs will not load jumpers with equipment to exceed 325 lbs. total rigged weight and will reduce this weight by 12.5 lbs. for every 1,000 feet of exit altitude above 3,000 feet MSL. The Airborne CDR/OIC/NCOIC must take into consideration during the planning stage the variety and weight of CE or weapons attached to a jumper which may impede the Aircrew’s/JMs ability to retrieve a towed jumper.

e. **USAF C-17 Aircraft.** IAW TO 1C-17A-1-4-9, *Loading Instructions*, the maximum rigged weight of the jumpers for C-17 troop door operations is 350 lbs. using TPRS and 250 lbs. without TPRS. SL operations from the cargo ramp of a C-17 are prohibited.

f. **Airdrop Speeds.** The Airborne CDR/OIC/NCOIC and PJM, during the Aircrew briefing, will ensure the Aircrew flies the following aircraft speeds IAW AFI 13-217, *DZ and Landing Zone Operations*.

Table 9-1. Airdrop Speeds.

Type Jump	C-27 Series	C-17	C-130
Personnel SL	125 Knots	130-135 Knots	125/130 Knots (See Note)
Door Bundle	125 Knots	130-135	130 Knots

NOTE: Use 125 Knots Indicated Airspeed only for Pararescue operations.

g. **Minimum Drop Altitudes.** The minimum criterion discussed below includes a 125 foot aircraft altimeter error and a 100 foot canopy control requirement for the MC-series parachutes.

(1) 1,500 feet AGL for the MC-series parachute when exiting an aircraft with a drop speed < 90 knots.

(2) 1,000 feet AGL for the T-11 and MC-series parachute when exiting fixed wing aircraft with a drop speed ≥ 125 knots.

(3) 1,250 feet AGL for the MC-series parachute when exiting rotary wing aircraft with a drop speed ≥ 90 knots.

(4) 800 feet AGL for the MC-series parachute when exiting fixed wing aircraft with a drop speed \geq 125 knots if justified by a command decision risk assessment.

CAUTION: The T-11 parachute should not be jumped above 1,250 feet AGL due to the characteristics of the parachute. The jumper may drift off of the surveyed DZ.

CAUTION: The T-11 parachute should not be jumped from rotary-winged aircraft due to the characteristics of the parachute. The jumper may drift off of the surveyed DZ.

NOTE: The USASOC C-27J Spartan is a different aircraft than the conventional C-27A referenced in TC 3-21.220. Follow procedures in ATP 3-18.10 when jumping the USASOC C-27J Spartan.

NOTE: Refer to applicable Service/USSOCOM MSC publications for the operation planned.

Table 9-2. Minimum Jump Altitudes.

Tactical Status	Aircraft Type	Application	Feet AGL	
			T-11	MC-Series
Training	Fixed-Wing	Tactical training.	1,000	1,000 ¹
	Rotary-Wing	Aircraft with a drop speed less than 90 knots.	N/A	1,500
	Rotary-Wing	Aircraft with a drop speed more than 90 knots.	N/A	1,250
¹ 800 feet AGL for the MC-series parachute when justified by a command decision risk assessment.				

h. **DZ Size Criteria.** The size of the DZ required will be determined IAW AFI 13-217 and applicable Service/USSOCOM MSC publications for the operation planned.

i. **High Elevation DZs.** The term “high-elevation” refers to SL operations that begin at normal altitudes AGL (800 feet), but where the DZ is 5,000 to 10,000 feet above MSL, such as mountainous terrain. CDRs must consider that lower air density or higher altitudes will increase the canopies’ rate of descent. CDRs should consider the following:

(1) **Parachutes.** The MC-series parachutes are suitable for the airdrop of personnel onto DZs with ground elevations up to 10,000 feet. Current jump procedures are valid.

(2) **Injuries.** Airborne operations onto DZ elevations of 5,000 to 10,000 feet that place safety secondary to tactical considerations can produce injury rates of up to four times those expected for similar DZ operations near sea level. Injury rates can be reduced by intensive instruction, training, and practice to include the following:

(a) Exit body position and PLF upon ground impact.

(b) Jumper awareness of increased opening shocks and faster rates of descent.

- (c) The ability to control the parachute during sudden wind shifts and changes in wind velocity.
- (d) Correct wearing of equipment and ensuring serviceability.

9-8. Airdrop Release Methods.

a. There are several different airdrop release methods employed by SOF during airborne operations. Each method uses a variety of equipment and applications. Each of the different methods illustrated below has its advantages, disadvantages, and criteria for use.

(1) **CARP Drop.** The aircraft Navigator is responsible for getting the aircraft to the DZ at the right heading and altitude. The aircraft Navigator activates the green light and the green light is the signal for the JM to begin the drop. The JM should ensure the aircraft is at the correct DZ, heading, and altitude before releasing jumpers or bundles. CARP operations may or may not require a reception committee to mark the DZ. The advantages/disadvantages of a CARP drop are as follows:

(a) **Advantage.** CARP can be used during limited visibility when the JM is unable to see the DZ or other identifying terrain features.

(b) **Advantage.** A reception committee is optional. If one is used, it does not require training and is smaller than that required for GMRS.

(c) **Advantage.** If the DZ is marked, the markings are smaller and require less area than GMRS.

(d) **Advantage.** The CARP decreases the chance enemy or others will see markings or lights.

(e) **Disadvantage.** CARP drop accuracy is dependent on the USAF navigational equipment and if there's no reception committee, the infilling unit will not have any security or assistance on the ground.

(2) **GMRS.** GMRS is used for covertly infiltrating a small unit into a denied area without using radio communications. A trained reception committee on the DZ marks the RP with specified ground markings. The pilot and JM use the ground markings as a reference. The JM directs the GMRS, spots the ground marker from the aircraft and, if all conditions are correct and safe for the drop, commands "GO".

(3) **VIRS.** VIRS is a procedure that provides verbal steering guidance to rotary or fixed wing aircraft for dropping a specified number of personnel on small DZs. The reception committee calculates the RP on the ground and places whoever is giving directions to the aircraft at the RP. This person then guides the aircraft to a spot directly overhead and radios the aircraft to release the jumpers or cargo. Commands used when conducting VIRS should be as short and concise as possible so as not to interfere with the approach of the aircraft to the DZ. VIRS relies on good visibility and an experienced DZSO/DZSTL.

NOTE: For GMRS or VIRS drops, the DZSO must be a qualified JM in the type of jump being conducted.

(4) **Wind Streamer Vector Count (WSVC).** The JM uses the WSVC method to determine the RP from the air. Normally, the JM executes this method, which does not require DZ markings. The WSVC method should not be used for tactical employment, since the aircraft is required to make multiple passes over the DZ. The steps for WSVC are as follows:

(a) **Streamer Drop.** On the first aircraft pass over the desired impact point (DIP), the JM drops a streamer from the aircraft. The aircraft then turns to allow the JM to keep the streamer in sight and adjusts his route so the flight path is over the streamer on the ground and the DIP (in a straight line).

(b) **Count.** As the aircraft passes over the streamer, the JM begins a count, stopping the count directly over the DIP. He immediately begins a new count. When that count equals the first count, the aircraft is over the RP for the first jumper.

(c) **Aircraft Flight Adjustment.** The pilot then maneuvers the aircraft to fly along the axis of the DZ and over the RP. The pilot may make slight adjustments based on how the jumpers land on the DZ.

NOTE: If the aircraft must be shut down for a long period, the JM throws another wind drift indicator at the last RP to make sure the RP is still valid.

(5) **Blind Drop.** A blind drop is a type of CARP jump with an unmarked DZ and no reception committee. Blind drops provide infiltration of a small reconnaissance element or SOF team into a denied area to conduct SO missions. These operations are single-ship airborne operations conducted in a single pass without communications or assistance.

(6) **MPI.** An MPI operation has a reception committee that uses a pre-designated block letter or light signal to mark the DIP on the DZ. This marking is the only one required. The DIP should be located along the DZ centerline. However, due to the tactical situation, the DIP may need to be located near a wood line. The DZSO/DZSTL uses a buffer zone of 100-meters on each side of the DZ during personnel drops for safety reasons. The aircraft Navigator computes the RP according to the MPI and flies as if the operation were a CARP jump.

(7) **Rough Terrain Airborne Operations.** The purpose of a rough-terrain airborne operation is to parachute an element into an area that has no suitable DZ. It is a jump into an unprepared, mountainous, rocky, or wooded DZ. This technique minimizes terrain considerations and gives the commander maximum latitude in DZ selection. Rough terrain airborne infiltration is not normally limited to favorable astronomical and weather conditions. A reception committee is not necessary for a rough-terrain airborne infiltration. When conducting rough-terrain jumps, all jumpers will wear the jumper rough-terrain system to provide protection.

(8) **JM Spotted and JM Release (JSJR).** JSJR is used by USMC, Navy, and USSOCOM MSCs. The JSJR RP computation or “spotting” may be used from all types of aircraft. It is the same concept as the calculations used for VIRS and GMRS however; it is used by the JM for spotting and determining the release point (RP) from the aircraft. The PJM will need a map of the DZ (1:50,000 or 1:25,000), protractor, pencil, and calculator. The PJM will plot the IP, canopy drift, forward throw, RP, terrain feature, and wind direction on the map IAW applicable Service/USSOCOM MSC publications.

b. Not all aircraft are capable of conducting all of the various infiltration techniques mentioned above. The Airborne CDR/OIC/NCOIC should be cautious of the qualifications and who is or isn't qualified to conduct alternative airborne infiltration techniques. USSOCOM will adhere to the procedures, requirements, and restrictions described in applicable Service/USSOCOM MSC publications.

9-9. Wind and Weather Restrictions.

- a. There is no wind limit at exit altitude.
- b. Ceiling and visibility minimums:
 - (1) Visual Airborne Operations.
 - (a) Ceiling: 500 feet above drop altitude.
 - (b) Visibility: Three statute miles. Cloud clearance: 2,000 feet horizontal.
 - (2) Instrument Meteorological Conditions:
 - (a) Ceiling: 200 feet AGL.
 - (b) Visibility: Half Nautical Mile.
- c. The Maximum Surface Wind Chart for SL Operations is depicted in Table 9-3 below.

Table 9-3. Maximum Surface Wind Chart for SL Operations.

Type Jump	Type Operation	Type Parachute	Wind Speed
Personnel Jumps	SL Land/Intentional Tree	Round	13/17 Knots
	SL Land/Intentional Tree	Ram Air	18/22 Knots
Water Jumps (See Note)	SL	Round	17 Knots/28 Knots
	SL	Ram Air	18 Knots/25 Knots

NOTE: Wind speeds vary from 17 to 28 knots per Service/USSOCOM MSC publications. Units jumping in wind speeds greater than 17 knots should only do so if the planned operation dictates and when justified by a command decision risk assessment.

9-10. Deliberate Water Airborne Operations. USSOCOM MSCs are authorized to conduct deliberate water airborne operations. Conduct all deliberate water airborne operations during the following conditions:

- a. Day and night water parachute operations.

- b. Wind conditions permit the operation and surface winds are acceptable.
- c. The water DZ will not be in or near the surf zone.
- d. Water will be more than 10 feet deep with no underwater obstacles at that same depth.
- e. Sea state is no more than “2” IAW Joint Publication (JP) 4-01.6, *Joint Logistics Over-the-Shore*.
- f. Jumpers are appropriately classified (swimmers) IAW applicable Service/USSOCOM MSC publications.
- g. All jumpers have been trained on activation procedures for the life preserver in use, to include manual inflation procedures.
- h. Jumpers jumping in cold water (60 degrees or lower) will wear wet suits or dry suits.
- i. All jumpers have completed drown-proofing training within the preceding 12 months.
- j. All jumpers have attended pre-jump training on deliberate water DZ procedures IAW applicable Service/USSOCOM MSC publications.
- k. All CE is float-checked.
- l. Jumpers will be current SL jumpers before making water jumps. An individual’s first water jump will be performed during the daytime and without CE.
- m. All jumpers and safety swimmers have completed an intentional water jump or wet silk/parachute disentanglement training within the preceding 12 months. Wet silk/disentanglement training is conducted at the unit level by JM qualified personnel certified as an advanced swimmer/1st class swimmer/dive qualified IAW applicable Service/USSOCOM MSC publications. The JM, in a controlled environment, will use an unserviceable parachute in a pool with safety swimmers. The jumpers, one at a time, demonstrate the following actions during a water landing:
 - (1) Jump into the water, and swim under the canopy to experience what it is like to be under a parachute in the water.
 - (2) The jumper demonstrates his ability to follow a radial seam to get safely out from under the canopy, makes an air pocket under the canopy to breathe from, and breathes from the apex of the canopy.
 - (3) If a jumper is trapped under the canopy during training, the safety swimmers pull the jumper out of the water. A minimum of two safety swimmers with mask, fins, snorkel, dive knife, and a Medic/Corpsman will be available during this training. A standby self-contained underwater breathing apparatus diver is also recommended.
 - (4) Wet silk/parachute disentanglement training will be documented in the jumpers jump log.

WARNING: The porosity of the T-11 and MC-6 is extremely limited and may create a suffocation hazard if the jumper is trapped under the canopy.

WARNING: Do not activate the canopy release assembly (CRA) until the feet make contact with the water. Altitude is hard to judge over the water. If the jumper activates his CRAs at even moderately high altitude (for example, 50 feet), serious injury or death may result.

9-11. Exit Procedures.

a. **Alternate Door Exit Procedures for Training (ADEPT) Options.** The ADEPT options are used when jumping the T-11 and MC-series (MC-6, MC-7) parachutes. This training safety measure allows the maximum number of jumpers to exit the aircraft with a minimum risk of high altitude entanglements.

(1) **Option 1.** This exit option can be used when jumping the T-11 and MC-series parachutes. During a single pass over the DZ, only one stick of jumpers on one side of the aircraft jumps. After issuing the command ‘STAND-BY’, the PJM turns toward the paratroop door and regains control of his SL. The PJM then controls the number one jumper by grasping the jumper’s saddle. When the jump caution lights turn green, the PJM (on the active door for the pass) issues the command, “GO”, to the number one jumper and taps him on the thigh. The PJM controls the flow of jumpers (performing a visual inspection of each individual jumper, his SL, and his equipment as he approaches the door) and observes the jump caution lights. The Safety takes the SLs. Once the last jumper exits the active door, the Safety visually clears to the rear, gives the Loadmaster a thumbs up signal, and with the assistance of the Loadmaster and or SL retriever, pulls in the SLs and d-bags. During the pass, the AJM in the inactive door performs outside air safety checks and then observes the actions in the active door, since (under this option) he will not have any jumpers exiting his door. Subsequent passes alternate from door to door until all jumpers have exited. The AJM is the last jumper to exit on his side of the aircraft and the PJM is the last jumper onboard the aircraft and he exits from his door.

(2) **Option 2.** This exit option can be used when jumping the T-11 and MC-series parachutes. During a single pass over the DZ, one stick of jumpers exit from the PJMs door, followed by a stick of jumpers from the AJMs door. After issuing the command “STAND BY”, the PJM turns toward the paratroop door and regains control of his SL. The PJM controls the number one jumper by grasping the jumper’s saddle. When the jump caution lights turn green, the PJM (on the primary door for the pass) issues the command “GO”, to the number one jumper and taps him on the thigh. The PJM controls the flow of jumpers (performing a visual inspection of each individual jumper, his SL, and his equipment as he approaches the door) and observes the jump caution lights. The Safety takes the SLs. The AJM observes the actions in the PJMs door. When he sees only three jumpers remaining in the PJMs stick, he faces his jumpers and issues the command “STAND BY”. When the AJM sees the last jumper clear the jump platform in the PJMs door, he turns and rechecks his jump caution lights (the PJM is now observing the actions in the AJMs door). If the jump caution lights are still green, the AJM verbally issues the command “GO”, to his number one jumper and taps him on the thigh. The AJM controls the flow of jumpers (performing a visual inspection of each individual jumper, his SL, and his equipment as he approaches the door) and observes the jump caution lights.

The Safety takes the SLs. When the last jumper exits from the AJMs side of the aircraft (last pass), the AJM gives his SL to his Safety, checks the jump caution lights, and, if they are green, exits. The PJM, seeing the AJM exit, passes his SL to his Safety, checks the jump caution lights, and, if they are green, exits. Safeties on both doors visually clear to the rear of the aircraft and give the Loadmaster a thumbs up signal and helps the Loadmaster recover SLs and d-bags.

NOTE: Follow the procedures in ATP 3-18.10 when jumping ADEPT Option 2 from a USASOC C-27J.

(3) **Mass Exits.** This exit procedure is used only when jumping the T-11 parachute. During this type of exit, jumpers may exit from both doors at the same time. After issuing the command “STAND BY”, the PJM turns toward the paratroop door and regains control of his SL. The PJM controls the number one jumper by grasping the jumper’s saddle. When the jump caution lights turn green, the PJM issues the command “GO”, to the number one jumper and taps him on the thigh. As the number one jumper exits, the AJM turns and also issues the “GO” to his jumpers creating a staggered exiting effect. Both the PJM and AJM control the flow of jumpers (performing a visual inspection of each individual jumper, his SL, and his equipment as he approaches the door) and, observe the jump caution lights. The Safeties take the SLs. When the last jumper exits from the AJMs side of the aircraft, the AJM gives his SL to his Safety, checks the jump caution lights, and, if they are green, exits. The PJM, seeing the AJM exit, passes his SL to his Safety, checks the jump caution lights, and, if they are green, exits. Safeties on both doors visually clear to the rear of the aircraft and give the Loadmaster a thumbs up signal and helps the Loadmaster recover SLs and d-bags.

b. **Intermingling Parachute Systems.** The Airborne CDR/OIC/NCOIC may authorize the use of different types of parachutes on the same pass, providing parachutes are grouped by type with a three second delay between parachute types and sufficient reasons exist. During operations that require parachutes of different types to be jumped on the same pass, personnel wearing parachutes with the slowest rate of descent will always exit the aircraft last.

9-12. Refresher Training.

a. **Airborne Refresher Training.** Airborne refresher training is required for personnel who have not jumped within a 6 month period. The length of airborne refresher training depends on the proficiency of the jumper. Airborne refresher training will be instructed and documented by a qualified and current JM. SCs may modify these requirements depending on training aids, equipment availability, and other requirements described in applicable Service/USSOCOM MSC publications.

b. **JM Refresher Training.** JM refresher training is designed to update qualified JMs who have not conducted JM duties within the last 6 month period. JM refresher training will be instructed and documented by a current and qualified JM using equipment normally used during airborne operations. Any special requirements, such as non-standard aircraft or special items of equipment, may add periods of instruction to the training as needed. SCs may modify these requirements depending on training aids, equipment availability, and other requirements described in applicable Service/USSOCOM MSC publications.

9-13. Sustained Airborne Training (SAT). All personnel will attend SAT. Jumpers must be positioned so their actions can be viewed by the PJM and they can hear him. A bullhorn can be used, if necessary. SAT is performance oriented and should be tailored to fit the mission. The AJM and Safety personnel will make aggressive and positive on-the-spot corrections. SAT will be taught proficiently.

a. SAT is conducted in the unit area or at the DAF. SAT should be scheduled and conducted within 48 hours before takeoff. The PJM usually does not know the proficiency of all jumpers for which he is responsible; therefore, basic SL jump techniques are rehearsed so each jumper can demonstrate his ability to perform them. JMs, Safeties, and key leaders will make on-the-spot corrections of any jumper not properly performing the required training.

b. SAT will consist of, at a minimum, PLFs and mock door training, a review of the five points of performance, towed jumpers, collisions, entanglements, malfunctions, activation of the reserve, and emergency landings. Mock door training will include rehearsal of every detail involved with the airborne operation to include SL control, accidental activation of the reserve on board the aircraft, red light procedures, jump refusals, and emergencies on board the aircraft.

9-14. Transition Training. Transition training is required for personnel who have not jumped the T-11/MC-6/7 parachute system. The length of transition training depends on the proficiency of the jumper and number of jumpers to be trained. Transition training will be instructed and documented by a qualified and current T-11/MC-6/7 JM. SCs may modify these requirements depending on training aids, equipment availability, and other requirements described in applicable Service/USSOCOM MSC publications.

9-15. Reporting Requirements. All USSOCOM MSCs involved in SL operations will report every SL jump and any malfunctions/incidents of SL personnel parachutes using a DD Form 1748-2.

a. If a serious injury or death results from a malfunction/incident, Class A or B mishap, an initial report via e-mail will be sent to the Director, USAQMS, Aerial Delivery & Field Services Department (ADFSD), Fort Lee, VA within 12 hours of the malfunction to usarmy.lee.tradoc.mbx.lee-adsd-mrb@mail.mil. If e-mail capability is not available, call DSN 687-3178/4794 or (804) 734-3178/4794 (commercial) to report by telephone. The initial report will include sufficient facts, insights, and tentative ideas on the cause and mechanics of the malfunction/incident in order for the CDRUSAQMS, to request grounding of the affected equipment, if required.

b. See paragraph 8-2 for additional DD Form 1748-2 reporting requirements by Component.

c. All USSOCOM MSCs involved in airdrop activities will submit monthly airdrop activities using a DD Form 1748-3 via the USAQMSs web site at: <https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fbook%2Fgroups%2Fairdrop-malfunction-and-safety-analysis-review-board>. Subordinate reports will be consolidated through respective upper echelon commands IAW AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D.

CHAPTER 10

MILITARY FREE-FALL (MFF) OPERATIONS

10-1. General. USSOCOM is often required to infiltrate denied areas without being compromised. A preferred method of doing this is MFF HALO or HAHO operations. MFF parachute operations are conducted by flights over, next to, or by means of standoff from the objective area from altitudes not normally associated with conventional parachute operations. MFF infiltrations will normally take place during darkness or twilight under varying weather conditions to reduce the chance of enemy observation. RAPPS permit operators to deploy their parachutes at a designated altitude, assemble in the air, and land together in the objective area prepared to execute the mission.

10-2. MFF Training Requirements. All USSOCOM MFF and Tandem operations conducted under the authority of USSOCOM will abide by the policies, procedures, safety standards, and baseline interoperable tasks, conditions, and standards listed in this manual, and if applicable, adopted Service/USSOCOM MSC publications. All MFF equipment will be Service/USSOCOM MSC approved and listed on applicable AULs.

a. Personnel who are graduates of a USSOCOM certified MFF course may participate in USSOCOM MFF operations. USAF and USN personnel who attended a Service MFF course prior to October 1995 may also participate in USSOCOM MFF operations. Allied personnel must have completed a USSOCOM certified COI/POI or have been qualified by their own country. MFF qualified personnel will meet MFF currency/proficiency requirements and positional prerequisites described in applicable Service/USSOCOM MSC publications, and this manual.

b. Military tandem operations are the most advanced form of MFF parachuting which gives the CDR the ability to deliver personnel and equipment through various techniques of parachuting missions. MTMs are required to conduct tandem jumps with experienced and inexperienced persons under many different and possibly stressful environments. Under these situations it is the responsibility of the MTM to be professional and project an understanding of knowledge and skill. MTMs must always ensure the passenger understands all of the safety procedures and are physically and mentally prepared to make a tandem jump. Passengers who are fully briefed and prepared for a tandem jump will be less likely to experience sensory overload and fear.

c. Recurring (Periodic) MFF Operational Pauses. MFF operational pauses are a mandated annual requirement and will be completed by the end of each fiscal year. Safety is an integral part of all training. MFF training is dangerous and demanding; conducting tough, realistic training while managing and mitigating risk are compatible endeavors. CDRs will fully integrate safety considerations and risk management into MFF operations. Success is defined as the implementation of sound risk management principles that maximize realism and combat effectiveness while identifying and mitigating risks. The MFF operational pause will be conducted as follows:

(1) In order to facilitate the best use of time, operational pauses should be planned well in advanced and integrated into unit training plans.

An O-5 level unit commander (may not be delegated lower) or above, will both personally oversee, and ensure completion of, the operational pause event.

(2) All MFF qualified jumpers and MFF JMs will attend. Unit Safety personnel (or designates) will document individual attendance (method determined by SCs) at the required training event.

(3) The operational pause will be planned for an 8-hour day with a 4-hour safety/policy and procedures discussion block in the morning followed by a 4-hour hands-on training block in the afternoon. Topics should focus on the safety aspects of associated tasks, as well as any ties to recent MFF mishaps if applicable. The specific minimum items to include for discussion/training as related to MFF are as follows:

(a) Safety (within the 2-hour morning block). Include a discussion on EPs, environmental considerations, mission hazards, physical/medical considerations, and prior year mishaps; include both internal (unit) and external trends.

(b) Policy and Procedures (within the 2-hour morning block). Include discussions on aircraft procedures (include non-standard aviation), EAADs, DZ markings, hand and arm signals, individual protective equipment, MFF training profiles, non-standard equipment and oxygen requirements.

(c) Training (4-hour afternoon block). Include hands-on training for canopy control and grouping, rigging CE, exit procedures and body stabilization, jump commands, parachute packing, suspended harness, and vertical wind tunnel (VWT) training if available.

10-3. MFF and Tandem Parachute Systems.

a. MFF parachute systems are designated as “**Tactical**” or “**Non-Tactical**”. To enhance infiltration capabilities, MFF parachute systems will meet or exceed each USSOCOM Major Subordinate CDRs unique MFF operational requirements.

(1) **Tactical RAPPs.** Tactical RAPPs are used for MFF training and real world MFF infiltrations. They are either “Service Common” or “Service Approved COTS” MFF personnel parachutes, associated parachuting equipment, or a combination thereof that has been tested and approved within DOD and designated on Service/USSOCOM MSC AULs. The following are examples of Service Common tactical RAPPs:

- (a) Ram-Air-1 (RA-1).
- (b) MC-4.
- (c) Multi-Mission Parachute System (MMPS).
- (d) Military Tactical-2 (MT-2).

(2) **The following are examples of Service approved COTS tactical RAPPs:**

- (a) Military Javelin.
- (b) SO Vector-III.
- (c) Military Tandem Vector-III.

(3) **Non-Tactical RAPPs.** Non-tactical RAPPs are used primarily by MFF Instructors (MFFI), MFF Camera Flyers, Safety Flyers, and Demonstration Teams. They are Service approved COTS non-standard parachutes, associated non-standard parachuting equipment, or a combination thereof that has been approved and designated on Service/USSOCOM MSC AULs.

(4) All tactical or non-tactical RAPPs must be equipped with an operable Service/USSOCOM approved EAAD.

b. There are multiple types and sizes of tandem parachute systems available for passengers and MTTBS operations. The minimum suspended weights for a MTM passenger and or equipment (including if the MTTBS is used) will not be less than 240 lbs. or exceed the maximum tested weight of the MTPS used.

(1) Commonly used main canopies for tandem operations are:

- (a) Tandem Phoenix (TP); TP360.
- (b) TP400.
- (c) TP460.

(2) Commonly used reserve canopies for tandem operations are:

- (a) Heavy Reserve (HR).
- (b) HR; HR400.
- (c) Military Tandem Vector Reserve (MTVR); MTVR421.

10-4. MFF/Tandem Parachute Requirements. Packing and maintenance requirements for “tactical” and “non-tactical” parachute systems, to include tandem parachutes systems are at the discretion of USSOCOM MSCers or their designated representatives.

a. MFF qualified non-rigger personnel authorized to pack their own main parachute, who have not packed a RAPPs main parachute within **90 days** requires refresher training. Refresher training consists of packing the RAPPs main parachute under the direct supervision of an on-site IP qualified uniformed Parachute Rigger or DOD civilian equivalent qualified on the type of parachute being packed within 60-minutes without error.

b. Direct supervision means an on-site IP qualified uniformed Parachute Rigger or DOD civilian equivalent personally observes the packing of a tactical or non-tactical RAPPS to the extent necessary to ensure it is being done properly, and takes responsibility for the packing. Both the packer and the Pack-In-Process Inspector qualified uniformed Parachute Rigger or DOD civilian equivalent will sign the log record book.

NOTE: At no time will MFF qualified non-rigger personnel whose primary job is something other than packing parachutes, pack a tactical or non-tactical RAPPS main canopy for someone other than themselves to jump.

c. Only authorized equipment will be attached to the tactical and non-tactical COTS RAPPS harness or container.

d. Stored parachute assemblies that are packed Ready for Issue (RFI), which includes personnel and cargo parachutes, will be stored in a secure manner inaccessible to unauthorized personnel. RFI parachutes will be secured with two layers of security. The first layer of security is the parachute facility itself and the second layer of security is the RFI storage room(s) that has floor to ceiling protection and the ability to be locked.

e. Parachute facility access will be strictly controlled. Only designated personnel are authorized unescorted access to the parachute facility. Only assigned Parachute Riggers and command designated personnel are authorized access to the RFI parachute storage room(s). Undesignated personnel require an escort at all times.

f. Parachutes requiring maintenance or repack will be maintained separately from parachutes categorized as RFI.

g. The packing of, maintenance, or storage of personally owned parachute equipment in the parachute facility is strictly prohibited.

10-5. Use of Non-Tactical Commercial-off-the-Shelf Ram-Air Personnel Parachute Systems (RAPPS).

a. HQ USSOCOM and USSOCOM MSCs are authorized to jump and maintain Service/USSOCOM approved non-tactical COTS RAPPS. The use of non-tactical COTS RAPPS in any capacity is considered a military operation and will have the appropriate logistics support required IAW Chapter 5 of this manual. Command Parachute Demonstration Teams, who follow USPA guidelines, are the only organizations authorized to deviate from this policy. Non-tactical COTS RAPPS are authorized for use during MFF operations to include instructor, videographer, and coaching duties. Personnel authorized to use Service/USSOCOM approved non-tactical COTS RAPPS during MFF operations will do so IAW applicable Service/USSOCOM MSC publications, manufacturer recommended policies, procedures, and SOPs pertaining to such operations.

- b. All non-tactical COTS RAPPs will be equipped with an EAAD and a Reserve SL (RSL).
- c. USSOCOM personnel using non-tactical COTS RAPPs will receive a JMPI prior to exiting the aircraft. The PJM is responsible for ensuring all jumpers wearing non-tactical COTS RAPPs receive a JMPI from a current and qualified MFF JM who has been trained to JMPI non-standard COTS RAPPs.
- d. Use of personally owned parachute systems during USSOCOM MFF operations is strictly prohibited.
- e. USSOCOM personnel will not lease non-tactical RAPPs for use during USSOCOM MFF operations unless the leased COTS RAPPs are part of the unit's commercially procured MFF training program.
- f. Contact Flying. Contact flying is only authorized during instructional duties. Contact flying is defined as pre-meditated contact between jumpers during free fall.
- g. Canopy Relative Work (CRW). USSOCOM jumpers will not engage in any CRW during descent. CRW is defined as the intentional maneuvering of two or more open parachute canopies in contact with one another during descent.
- h. Main canopy wing loading will be a ratio of 1:1. This equals one square foot of canopy to one pound of a jumper's exit weight. To find the ratio, divide the jumper's exit weight in pounds by the square footage of the main canopy. Wing loading greater than a ratio of 1:1 is authorized only after the following experience level criteria is met and approved by the first O-5 in the chain of command.
 - (1) A minimum of 100 jumps on the current size main canopy.
 - (2) Jumper successfully demonstrates the ability to land with rear risers under current canopy size.
 - (3) Jumper successfully demonstrates the ability to flare and land from full-flight under current canopy size.
 - (4) Jumper successfully demonstrates the ability to flare and land from slow (braked) flight under current canopy size.
 - (5) Jumper consistently executes soft stand-up landings within 10 meters of planned target under current canopy size.
- i. Service/USSOCOM approved non-tactical COTS RAPPs minimum wing loading for extremely light jumpers; exit weights below 150 lbs., should not exceed a ratio of 0.45:1 (e.g., a 104 lb. jumper should not jump a main canopy larger than 230 square feet).
- j. By manufacturer and USPA standards, any parachute 150 square feet or smaller is considered a high performance parachute. Parachutes below 150 square feet will not be authorized unless a specific valid mission requirement exists.

k. Non-tactical RAPPs reserve parachutes and harnesses have FAA technical standard order (TSO) certified weight limits. TSO weight limits are stamped on the reserve canopy and harness placards. The jumper's exit weight will not exceed the TSOs weight limit of the reserve canopy or harness; whichever is lower.

l. The following are examples of USSOCOM personnel who traditionally use Service/USSOCOM approved non-tactical COTS RAPPs:

(1) Personnel participating in Service/USSOCOM Component approved tests.

(2) Current or previous MFFIs assigned or attached to Service/USSOCOM MSC approved MFF courses.

(3) NSWC Air Operations Trainers (AOT) and NSWC AOTs under instruction.

(4) USSOCOM authorized Demonstration Teams.

(5) Current or previous members of USSOCOM Special Mission Units (SMUs) for instructional duties, video support, proficiency, and skill set expansion.

(6) MARSOC qualified personnel IAW MCO 3120.11.

(7) AFSOC MFFIs.

(8) MFF qualified Parachute Riggers authorized to provide rigger support of personnel listed above or as deemed by a commander for Parachute Rigger proficiency and skill set expansion.

10-6. Key Personnel Responsibilities.

a. Key personnel are required to execute a MFF operation and the Airborne CDR/OIC/NCOIC, is the individual responsible for designating the following key personnel for each MFF operation; the PJM, AJM, MTM, Oxygen Safeties, DACO, DZSO/DZSTL, medical personnel, and MO.

b. The Airborne CDR/OIC/NCOIC gives the designated PJM responsibility for all personnel onboard a jump aircraft. While the PJM, AJM, or any other qualified key personnel may accomplish a variety of tasks, the Airborne CDR/OIC/NCOIC is ultimately responsible.

c. If the MFF operation includes jumping a tandem passenger, the MTM is responsible for the safety of the passenger at all times. The MTM will conduct the passenger brief within 48 hours of the actual jump. The MTM or a qualified Parachute Rigger will pack or inspect the MTPS prior to jumping. The MTM will not jump a MTPS he or a qualified Parachute Rigger has not packed or inspected. The MTM and passenger will be inspected by a qualified MFF JM prior to boarding the aircraft.

When boarding the aircraft, the tandem passenger is secured next to the MTM and is required to follow the same procedures as MFF jumpers, i.e., seatbelt fastened, helmet on for take-off and landings, etc. Ensure the tandem passenger remains seated until the MTM begins the passenger hook-up procedures.

- d. Each aircraft dropping MFF jumpers will have a minimum of one designated PJM and one AJM.
- e. The PJM will coordinate with the DZSO/DZSTL to ensure all support equipment and personnel have been identified to support the operation.
- f. Oxygen Safeties will be used when required.
- g. Detailed additional key personnel responsibilities and duties are described in applicable Service/USSOCOM MSC publications.

10-7. Individual Equipment.

a. **JMPI of Equipment.** The PJM is responsible for ensuring all jumpers receive a JMPI to include equipment not immediately attached to the jumper. Circumstances may warrant delaying the attachment of equipment, a tandem passenger, or a bundle until a pre-designated time later in the operations timeline. The Airborne CDR/OIC/NCOIC must consider individual and unit proficiency when conducting the command risk assessment. When equipment, a passenger, or a bundle is attached and secured after the initial JMPI, a current member of the JM team will inspect the equipment/passenger/bundle attaching points.

(1) If jumping from an aircraft with ample room and carrying equipment onboard, to include a tandem passenger; equipment and the tandem passenger(s) will be attached with the aircraft door(s)/ramp closed, usually after the 20 minute time warning or the command of “STAND-UP” has been given. Each jumper will ensure his equipment is properly attached and secured, and attaching points, tie-downs, and lowering lines are inspected by a member of the JM team. The PJM and AJM will inspect each other. The PJM or AJM will inspect the MTM and the attaching points of the tandem passenger. The MTM and passenger will not perform JM duties. The MTM will maintain communications with the PJM throughout the flight.

(2) If jumping from an aircraft with the doors removed or limited cabin space, MFF jumpers will be fully rigged (equipment attached) and inspected (JMPI) by a member of the JM team prior to loading the aircraft. Passenger hook-up procedures in aircraft with limited cabin space can be difficult if not rehearsed prior to loading the aircraft. If the passenger is unable to kneel in front of the MTM, the passenger may have to sit on the lap of the MTM to enable proper hook-up procedures; ensure a MFF JM checks the connection points before take-off.

b. **Special Items of Equipment.** Special items of equipment are attached or worn by the jumper in several configurations. Special precautions must be taken when wearing specialized items of equipment such as exposed weapons, oxygen systems, compass boards, radios, life preservers, or thicker gloves due to HAHO operations.

These items must not interfere with the manual activation of the main parachute or the performance of EPs. The MTM is required to have a “reachable” hook-knife during all tandem operations. The tandem passenger will be equipped with an authorized helmet, Service approved footwear, clear goggles, altimeter, and protective clothing.

c. **Military Approved PFDs.** Jumpers will wear military-approved PFDs whenever the planned flight path is over open bodies of water large enough to be unavoidable with a RAPPS for one-third or more of the distance under canopy. Jumpers must also wear PFDs when the DZ is within 1,000 meters of a body of water. A body of water is defined as water four feet deep or deeper and 40 feet long or longer. Jumpers must wear enough flotation to be positively buoyant.

d. **Cybernetic Parachute Release System (CYPRES) EAAD.** The CYPRES is an EAAD designed to sever the reserve closing loop that holds the reserve container closed. Once severed, the reserve pilot-chute deploys initiating reserve canopy deployment should the jumper fail to initiate main canopy deployment. A CYPRES is mandatory for every Service common and Service approved tactical and non-tactical COTS RAPPS whether jumping over water or land. The Military CYPRES-2 is water resistant for 15 minutes at five meters. If a Military CYPRES-2 gets wet from a water landing, the Parachute Rigger at the unit level is responsible for changing the filter in the processing unit.

(1) The most commonly used CYPRES are the Expert CYPRES-2, the Military CYPRES-2 1000 35 A, the Military CYPRES-2 1500 35 A, and the CYPRES-2 2500 29 A.

(2) The Military CYPRES-2 and the Expert CYPRES-2 models will only activate and fire the release element within the activation window. The Military CYPRES-2 will only fire the release element for parachute malfunctions that fall through the activation window and meet the vertical activation speed of approximately 78 miles per hour (mph) or 35 meters per second. All parachute malfunctions that fall faster than the vertical activation speed (such as pack closure, hard pull, bag lock, and horseshoe malfunctions with the canopy in the bag) and are within the activation window, will meet the conditions to fire the release element. For all other parachute malfunctions that cause the jumper to fall slower than the vertical activation speed (such as single-riser separation, line over, pilot chute over the nose, line twists, closed end cells, broken control lines, and tension knots), the jumper must activate the reserve manually. The Military CYPRES-2 and the Expert CYPRES-2 will go into “stand-by mode” at 130 feet above the Virtual DZ (VDZ) and will no longer operate.

(3) The Military CYPRES-2 models have two modes of operation; training mode and operational mode. The Expert CYPRES-2 also has two modes of operation; training mode and offset mode.

(a) **Military CYPRES-2 Default (Training) Mode.** The default (training) mode is used for non-tactical jumps that meet specific parameters; inclusively, the DAF and DZ must be the same location in terms of elevation. Once properly powered ON, the Military CYPRES 2 arms itself 1,500 feet above the default activation altitude of 1,500 feet AGL. Once armed, the activation window will extend from the default activation elevation down to approximately 130 feet above the DAF elevation.

(b) Military CYPRES-2 Absolute (Operational) Mode. The absolute (operational) mode is used for both tactical and non-tactical jumps in any scenario. Once properly powered on, the Military CYPRES-2 arms itself immediately. The activation window will extend from the default activation setting above the VDZ, set by the JM down to approximately 130 feet above the VDZ.

(c) The JM and Pilot must consider the following when using the Military CYPRES-2 in the absolute (operational) mode.

1. When in the absolute (operational) mode, the Military CYPRES-2 can be set in both a pressurized and a depressurized aircraft while in flight.

2. During an in-flight power on for an unpressurized cabin, the aircraft climb rate or descent rate will not exceed 1,000 feet per minute or a steady pressurized rate within 1,000 feet per minute for a pressurized cabin until all Military CYPRES-2 models are powered on. Leveling off is preferred.

3. While descending, the aircraft should never exceed the vertical activation speed for the Military CYPRES-2 while in the activation window. Exceeding the vertical activation speed may cause the Military CYPRES-2 to fire the release element and deploy the reserve parachute. Aircraft may exceed the vertical activation speed of 6,900 feet per minute during descent while executing a tactical landing that will cause the Military CYPRES-2 to activate in the aircraft. The JM must brief the Pilots not to exceed 5,000 feet per minute as this descent rate is easy to remember.

4. Descent to an altitude below the elevation of the DAF will not affect the Military CYPRES-2 in the absolute (operational) mode.

5. Once the aircraft descends through the VDZ altitude, the Military CYPRES-2 will deactivate itself and will not fire the release element. Therefore, if the jump altitude is lowered below the VDZ, all Military CYPRES-2 models on the aircraft must be reset.

(d) Expert CYPRES-2 Default (Training) Mode. The default (training) mode can be used for non-tactical jumps that meet specific parameters; inclusively, the DAF and DZ must be the same location in terms of elevation. The Expert CYPRES-2, once properly powered, arms itself 750 feet above the default activation altitude of 750 feet AGL **but will be changed to 1,050 feet AGL** IAW Chapter 4.4.2 in the *CYPRES-2 User's Guide*.

(e) Expert CYPRES-2 Offset Mode. The offset mode can be used when the DAF and DZ are at different altitudes or locations and specific parameters are met. The Expert CYPRES-2 does not have an absolute (operational) mode. However, the Expert CYPRES-2 can be set with an offset that will allow for a $\pm 3,000$ foot difference between the DAF and the DZ.

(4) Characteristics of CYPRES-2 Models. Different settings are required to tailor the Military CYPRES-2 to specific parachute equipment and mission applications.

(a) The Expert CYPRES-2. The Expert CYPRES-2 is used on Service approved non-tactical COTS RAPPs and has the same look, function, maintenance, and theory of operation as the Military CYPRES-2 in training mode but is limited in use because it does not have an operational mode setting. While the Military CYPRES-2 uses millibars absolute as the unit for the setting, the Expert CYPRES-2 uses feet relative to the DAF. The Expert CYPRES-2 has its own pre-set activation altitude above the VDZ, activation speed, release unit configuration, and is identified by the “red” (ON/OFF) button located on the control unit. Unlike the Military CYPRES-2 models, the pre-set information is not printed anywhere on the outside of the Expert CYPRES-2.

(b) The Military CYPRES-2 Model 1000 35 A. The Military CYPRES-2 Model 1000 35 A is used on both Service approved non-tactical COTS RAPPs and the MTTB. The control unit button is green, and the markings indicate that the Military CYPRES-2 Model 1000 35 A is set to activate approximately 1,000 feet above the VDZ if the vertical speed is faster than approximately 78 mph (115 feet per second (fps)). The A in the unit model number indicates the pressure setting is in millibars absolute; the information in the control unit’s window display also reads in millibars. When the Military CYPRES-2 Model 1000 35 A is removed from the parachute system, the setting information can be read on the back of the control unit and on the front cover of the processing unit.

(c) The Military CYPRES-2 Model 1500 35 A. The Military CYPRES-2 Model 1500 35 A is used on Service common and Service approved tactical COTS RAPPs. The control unit button is green, and the markings indicate the Military CYPRES-2 Model 1500 35A is set to activate approximately 1,500 feet above the VDZ if the vertical speed is faster than approximately 78 mph (115 fps). The A in the unit model number indicates the pressure setting is in millibars absolute; the information in the control unit’s window display also reads in millibars. When the Military CYPRES-2 Model 1500 35 A is removed from the parachute system, the setting information can be read on the back of the control unit and on the front cover of the processing unit.

(d) The Military CYPRES-2 Model 2500 29 A. The Military CYPRES-2 Model 2500 29 A is used on TORDS. The control unit button is green, and the markings indicate the Military CYPRES-2 2500 29 A is set to activate approximately 2,500 feet above the VDZ if the vertical speed is faster than approximately 65 mph (95 fps). The A in the unit model number indicates the pressure setting is in millibars absolute; the information in the control unit’s window display also reads in millibars. When the Military CYPRES-2 Model 2500 29 A is removed from the parachute system, the setting information can be read on the back of the control unit and on the front cover of the processing unit.

(e) Use, mode, inspection, calibration, arming, and documentation procedures for the CYPRES EAAD are described in applicable Service/USSOCOM MSC publications.

WARNING: Arming an EAAD during DBSL operations. Limited test data has shown the potential for an inadvertent activation of the CYPRES EAAD in a towed jumper scenario during rapid decent with a RAPPs in the DBSL configuration.

Safety is always the most important consideration when conducting high risk training. CDRs at all levels must analyze the complete training event to determine the degree of risk to operators associated with arming an EAAD during DBSL operations.

(5) Minimum EAAD Setting.

- (a) 1,000 feet AGL for the Military CYPRES-2 1000 35 A.
- (b) 1,050 feet AGL for the Expert CYPRES.
- (c) 1,500 feet AGL for the Military CYPRES 1500 35 A.
- (d) 2,500 feet AGL for the Military CYPRES 2500 29 A.

(6) Follow applicable Service/USSOCOM MSC policy for additional Service/USSOCOM approved COTS EAADs.

e. **Altimeters.** With the exception of USSOCOM SMUs, no personnel conducting MFF operations will wear, mount, or attach an altimeter on the right wrist/arm. Primary and AJMs will ensure the onboard spare altimeter(s) are carried in a JM bag and secured in the aircraft. If the aircraft is conducting follow-on operations the JMs may exercise common practice of securing the spare altimeter to the waist band of the RAPPs worn.

(1) When the DAF altitude is different from the DZ altitude, ensure the altimeter is adjusted for the DZ altitude IAW applicable Service/USSOCOM MSC publications.

(2) Each MFF jumper, MTM, and tandem passenger will wear an approved altimeter on the left wrist when conducting overland MFF operations. If waterproof altimeters are available, they will be used for deliberate water MFF operations with more than 10 seconds of free-fall. At a minimum, deliberate water MFF operations will have one operational altimeter in the aircraft for jumper use. For unintentional water landings, if the altimeter is not waterproof, it should be replaced if it has been submerged in water.

(3) For MFF tandem passenger operations, it is recommended the MTM view the wrist altimeter by rotating the left wrist and looking in the direction of the altimeter rather than moving the altimeter in front. This movement could present an unsafe condition if the passenger were to grasp the MTMs arm.

(4) During night operations, altimeters will have either an integrated light or be configured with an additional light source adequate to illuminate the face of the altimeter.

(5) Altimeter failure during flight. If a MFF jumper/MTMs altimeter fails during flight, the MFF jumper/MTM will get the attention of the JM who will exchange the altimeter with the on-board spare in the JM bag. If the on-board spare is in use, the MFF jumper/MTM, and passenger will not jump and are moved to the front of the aircraft, seated, with seat belt fastened. The MFF jumper/MTM, and passenger can only exit the aircraft in an emergency situation.

(6) Altimeter failure during free-fall. If a MFF jumper/MTMs altimeter fails or is lost during free-fall, regardless of whether conducting a daytime or nighttime operation, the MFF jumper/MTM immediately clears his airspace, waves off, and pulls/releases the drogue.

(7) Altimeters must be transported and stored with care, and chamber-tested every 90 days for accuracy unless the altimeter contains a built-in “self-test”. Check altimeters after an unusually hard landing and after accidentally dropping it.

f. **Eye Protection.** MFF jumpers, MTMs, and tandem passengers must use shatter proof eye protection that provides a wide field of vision. All lenses will be free of any damage or scratches that might obstruct the jumper’s vision. When oxygen is used, all goggles, no matter what type, will be clear.

(1) If goggles are wind-blown from the eyes during free-fall, the jumper/MTM makes “one” attempt to replace them by squinting his eyes, continuing to maintain altitude awareness, and simultaneously reaches up with both hands symmetrically (keeping elbows high), to find and replace the goggles over his eyes. If the jumper/MTM is unable to find the goggles, he will continue squinting his eyes, maintain altitude awareness, and pull/release the drogue at the prescribed altitude. If unable to maintain altitude awareness, immediately wave off and pull/release the drogue.

(2) When the jumper uses NVDs to assist him during a night jump, the pull sequence during opening will remain the same as without NVDs. NVDs will be worn IAW applicable Service/USSOCOM MSC publications.

g. **MFF Oxygen Requirements.** Regardless of the type or origin of the aircraft, MFF JMs will comply with oxygen requirements in AR 95-1, *Flight Regulations*, AFI 11-202 Volume 3, *General Flight Rules*, AF Tactics, Techniques, and Procedures (AFTTP) 3-42.56, *High Altitude Airdrop Mission Support Operations*, AFI 11-409, (Table 2.1, PG. 7), Title 14, Code of Federal Regulations (CFR) Part 91, Sub-Part C, §91.211, *Supplemental Oxygen*, applicable Service/USSOCOM MSC Publications, and this manual for the operation planned.

(1) When the aircraft oxygen system does not provide sufficient oxygen regulators for all personnel, approved portable oxygen systems (e.g., oxygen consoles, hoses, masks, etc.) will be inspected and installed in the aircraft. The consoles will provide enough oxygen connections for all jumpers not accommodated by the normal aircraft oxygen system.

(2) Supplemental oxygen requirements from 10,000 feet MSL to 19,999 feet MSL. Supplemental oxygen is defined as a continuous supply of oxygen using an approved individual helmet and mask and will be used by all personnel during unpressurized MFF operations above 10,000 feet MSL. **EXCEPTION:** MFF jumpers may perform unpressurized MFF operations between 10,000 feet MSL and 13,999 feet MSL without supplemental oxygen for a period **not to exceed 30 minutes**.

(3) For unpressurized flights from 14,000 feet MSL to 19,999 feet MSL, or exceeding the 30 minute envelope between 10,000 feet MSL and 13,999 feet MSL, a continuous supply of supplemental oxygen will be used.

(4) High altitude oxygen requirements (at or above 20,000 feet MSL).

(a) All unpressurized MFF operations at or above 20,000 feet MSL requires USAF High Altitude Airdrop Mission Support (HAAMS) “Mission Ready” Physiology Technicians (PT). The primary mission for the HAAMS Center is to provide in-flight physiological support IAW AFI 11-409 to Aircrews, jumpers, and mission essential personnel performing unpressurized airdrop operations at 20,000 feet MSL and above.

(b) Located at Little Rock AFB, Arkansas, the HAAMS Center is manned with “Mission Ready” PTs responsible for providing mission essential support for DOD, CF, and SOF MFF operations, training, and test and evaluation of personnel airdrops. A “Mission Ready” PT is defined as available, current, and qualified. Mission Ready PTs provide support on various types of aircraft, both military and civilian.

(c) AFTTP 3-42.56 specifies the overall administration, operations, training, maintenance, standardization/evaluation, and support of the HAAMS program and ensures PTs are properly trained, equipped, and available for short-notice tasking(s). To enhance credibility and provide more effective user group operational support, the USAF HAAMS Center is manned with designated positions authorizing personnel to complete AT and conduct routine jump requirements. All CONUS and OCONUS non-contingency requests for PT support must be made to the USAF HAAMS Center workflow email address at 19mdg.sgssi@us.af.mil or by calling DSN: 731-6093/Commercial: (501) 987-6093.

(d) One USAF Mission Ready PT is required for each 16 personnel (Aircrew, jumpers, etc.) on board the aircraft for all unpressurized MFF operations conducted at or above 20,000 feet MSL. USAF PTs are specially trained to handle various oxygen system malfunctions and physiological incidents. PTs will make every attempt to resolve the issue(s) and advise the Airborne CDR/OIC/NCOIC and PJM of the safest course of action. If the problem has been identified and/or signs and symptoms of the incident have been resolved, the jumper and/or Aircrew may continue training with Airborne CDR/OIC/NCOIC and PJM concurrence. While these malfunctions and/or incidents may not meet reportable mishap classification criteria, it is important to investigate/report for hazard identification and mishap prevention. Therefore, the PT trip lead will ensure events, to include physiological incidents are reported to the Airborne CDR/OIC/NCOIC and PJM. Support for high altitude missions below 20,000 feet MSL may be requested to mitigate risks and is highly recommended.

(e) Oxygen Safeties (oxygen certified Parachute Rigger or another MFF JM with experience on the type of oxygen system used) must also be onboard each aircraft during MFF operations requiring supplemental oxygen. Oxygen Safeties must have received physiological training and manufacturer or unit-level technical training on the oxygen systems being used. The Oxygen Safety will not perform Primary or AJM duties. The number of Oxygen Safeties onboard the aircraft will depend on the complexity of the mission and number of jumpers.

(f) Oxygen Safeties assist the JM during oxygen parachute operations by setting up equipment (i.e., oxygen consoles, hoses, etc.), assisting jumpers with equipment issues in the aircraft and watching jumpers for any physiological and oxygen equipment related emergencies. While it is recommended the Oxygen Safety does not jump, he may jump providing no jumpers remain on the aircraft and only if it is absolutely operationally required.

(5) Pre-breathe requirements for MFF operations at or above 20,000 feet MSL. All personnel will pre-breathe 100 percent oxygen below 16,000 feet MSL cabin altitude on any MFF operation scheduled for an exposure at or above 20,000 feet MSL for times shown in Table 10-1 below.

(6) The Airborne CDR/OIC/NCOIC, with recommendations from the PT and PJM, will determine the course of action for a break in pre-breathing. Pre-breathing will be conducted with a personally-fitted oxygen mask attached to an approved helmet and personal oxygen system.

(a) Restrictions (Accumulative Total Time). The accumulative total time begins and ends when cabin altitude is above and below 20,000 feet MSL and will not exceed 110 minutes. Additional flying may be conducted below 20,000 feet MSL.

(b) Maximum Block Exposure Time. Aircraft cabin altitude time limits are categorized into blocks of altitude and are listed in Table 10-1 below. Additional flying may be conducted at lower blocks of altitude.

(c) If the aircraft lands between sorties, and the time on the ground equals or exceeds the time spent at or above a cabin altitude of 20,000 feet MSL, the accumulative total or block time (if applicable) of allowable duration can be reset to the maximum.

(d) No more than three pre-breather sorties in a 24 hour period (take-off to landing) unless otherwise restricted.

(e) At least 24-hours between exposures to or above 30,000 feet MSL.

(f) Ascent rates will not exceed 5,000 feet per minute.

Table 10-1. Pre-Breathing Requirements and Exposure Limits.

Altitude (<i>NOTE 1</i>)	Oxygen Requirement	Pre-Breathe Time	Maximum Block Exposure Time (<i>NOTES 2 and 3</i>)
10,000 feet – 13,999 feet	N/A – Not to Exceed 30-Minutes	N/A	Unlimited
14,000 feet – 19,999 feet	Supplemental	N/A	Unlimited
20,000 feet – 24,999 feet	100% Oxygen	30-Minutes	110-Minutes
25,000 feet – 29,999 feet	100% Oxygen	30-Minutes	60-Minutes
30,000 feet – 34,999 feet	100% Oxygen	45-Minutes	30-Minutes
35,000 feet or Above	100% Oxygen	75-Minutes	30-Minutes

Table 10-1. Pre-Breathing Requirements and Exposure Limits. (Cont.)**NOTES:**

1. Altitudes listed in MSL.
2. Aircraft must descend to a lower block (or below 20,000 feet MSL once the maximum block exposure time is met. Example – Planned drops at 39,999, 29,999, and 24,999; begins passing through 20,000 feet and is limited to 30-minutes at 39,999, descend to 29,999 for 30-minutes (60-minutes accumulative), and descend to 24,999 for 50-minutes (110-minutes accumulative).
3. Limits based on not exceeding 23% decompression sickness incidence under laboratory conditions (<1% operational impact such as abort or mission alteration/descent).

(7) Use of oxygen in non-standard aircraft. IAW Title 14, CFR Part 91, Sub-Part C, §91.211, no person may operate a civil aircraft of U.S. registry.

(a) At cabin pressure altitudes above 12,500 feet MSL up to and including 14,000 feet MSL unless the required minimum flight crew is provided with and uses supplemental oxygen for that part of the flight at those altitudes that is of more than 30-minutes duration;

(b) At cabin pressure altitudes above 14,000 feet MSL unless the required minimum flight crew is provided with and uses supplemental oxygen during the entire flight time at those altitudes;

(c) At cabin pressure altitudes above 15,000 feet MSL unless each occupant of the aircraft is provided with supplemental oxygen.

NOTE: The use of oxygen dramatically improves night vision. Wearing the oxygen mask until landing is a recommended procedure. The commander may consider using oxygen for all night freefall operations, even if the jump altitude does not require it.

10-8. Aircraft and Jump Altitudes.

a. Refer to applicable Service/USSOCOM MSC publications for specified procedures for specific standard and nonstandard aircraft and Service common and Service approved tactical and non-tactical RAPPs capabilities to include tandem operations.

b. Private and Commercial Aircraft. USSOCOM is authorized to conduct its own inspection program and designate an approval authority (Joint Air and Reconnaissance Division (J31)) for commercial operators used for airdrop operations IAW DODI 4500.53. DOD approved certificated carriers must be used for all interstate and intrastate operations when reasonably priced and available. If approved certified carriers are not reasonably priced and available, other commercial operators may be used, provided they are inspected by trained USSOCOM representatives and approved by the designated approving authority.

c. ParaTroop Air Carrier Listing. For non-standard civilian contracted aircraft not listed on the “ParaTroop Air Carrier Listing” located on Mil-Suite at <https://www.milsuite.mil/book/groups/dod-commercial-airlift-division-amca>, units should contact airlift providers and recommend they seek authorization to fly/drop DOD personnel to ensure they meet current requirements for certification for use during airborne operations.

d. Lift Tickets. USSOCOM Major Subordinate CDRs may authorize the purchase of lift tickets when civilian aircraft are required to conduct MFF jump training. As USSOCOM is leasing a seat on the aircraft, and not necessarily reserving all available seats, it may not be possible to restrict these lifts to USSOCOM personnel only. Separate passes will be used to de-conflict USSOCOM jumpers from other civilian jumpers for liability purposes. When separate passes are not feasible, exits made by USSOCOM jumpers and other civilian jumpers on the same pass will be separated by at least five seconds. In these cases, USSOCOM jumpers and other civilian jumpers must maintain adequate separation during free-fall and under canopy. The PJM is responsible for ensuring airspace de-confliction through such tools as exit order, spacing, pull altitudes, and canopy flight patterns. DZ requirements still apply IAW AFI 13-217.

e. Aircraft with Limited Space. Equipment will be attached by MFF jumpers and inspected (JMPI) for any rigging deficiencies by a member of the JM team before takeoff. MFF jumpers will ensure their equipment is properly attached and attaching points inspected when the command “STAND-UP” is given, and before standing up. The MTM, JMs, the tandem passenger, and MTTB safety personnel will work together to ensure the tandem passenger and/or the MTTB is properly attached and attaching points are inspected prior to the command “STAND-UP”.

f. Aircraft with Ample Space. Equipment/passengers/MTTBs will be attached after the 10-minute time warning and attaching points inspected by a member of the JM team. The PJM and AJM will inspect each other. MFF jumpers and MTMs will ensure their equipment/passenger(s) remains properly attached when the command “STAND-UP” is given, and before standing up.

g. Aircraft with an Open Door or Ramp. Equipment/passengers will be attached and inspected (JMPI) before takeoff. JMs need to remain vigilant and ensure their jumpers do not manipulate or adjust their equipment in such a way they could have an inadvertent deployment of the main or reserve pilot chute.

WARNING: If a jumper is standing in the vicinity of an open door or ramp and experiences a premature deployment, he tries to contain it; if any portion of the parachute goes out of the aircraft, he exits immediately to minimize or avoid serious injury.

h. Airdrop Speeds. The Airborne CDR/OIC/NCOIC and PJM, during the Aircrew briefing, will ensure the Aircrew flies the following aircraft speeds IAW AFI 13-217.

i. Aircraft Restrictions.

Table 10-2. Airdrop Speeds.

Type Jump	C-27 Series	C-17	C-130
Personnel, MFF	125-130 Knots (Flaps 2-3)	138-145 Knots	130 Knots (110 Min – 150 Max)

WARNING: When jumping the RA-1 in the DBSL configuration on fixed-wing aircraft, jumpers and JMs will only exit the aircraft utilizing over-the-ramp exit procedures.

WARNING: The RA-1 must not be jumped in the DBSL configuration from the ramp or doors of the USASOC C-27J Spartan.

NOTE: Ensure troop doors are closed when conducting over the ramp MFF exits from a USASOC C-27J Spartan.

j. Jump Altitudes. Table 10-3 and 10-4 contain the minimum exit and minimum opening altitudes over land or water for USSOCOM MFF operations. All USSOCOM EAADs are now waterproof, therefore, all USSOCOM RAPPs configured for MFF will have an EAAD installed and powered on prior to JMPI for either land or water MFF operations. USSOCOM MSC Parachute Demonstration Teams are exempt from Table 10-3 and 10-4 and will follow internal SC SOPs.

Table 10-3. Minimum Exit Altitudes Over Land or Water.

Altitude	RAPPs	EAAD	
		Yes	No
3,500 feet AGL	Service approved non-tactical COTS RAPPs. ¹	Y	
3,500 feet AGL	Service common or Service approved SL deployed tactical RAPPs/MTV-III.	Y	N ²
3,500 feet AGL	MT-2. ¹	Y	
4,000 feet AGL	MTV-III – SL Drogue.	Y	N ²
4,500 feet AGL	MMPS DBSL deployed.	Y	N ²
5,500 feet AGL	Service common or Service approved tactical RAPPs.	Y	
5,500 feet AGL	RA-1 from a rotary wing aircraft (side-door) in either the MFF or DBSL configuration.	Y	
5,500 feet AGL	MMPS: 1. Hand Deployed Pilot Parachute. 2. Self-Set Drogue. 3. SL Drogue.	Y	
5,500 feet AGL	MTV-III – Self-Set Drogue.	Y	

¹ To include following cargo (CRRC or Combatant Craft Assault).

² Optional until further engineering analysis can confirm safe or unsafe.

Table 10-4. Minimum Opening Altitudes Over Land or Water.

Altitude	RAPPS	EAAD	
		Yes	No
2,500 feet AGL	Service approved non-tactical COTS RAPPS. ¹	Y	
3,500 feet AGL	Service common or Service approved SL deployed tactical RAPPS/MTV-III.	Y	N ²
3,500 feet AGL	Service common or Service approved tactical RAPPS. ¹	Y	
4,000 feet AGL	MTV-III – SL Drouge. ¹	Y	N ²
4,500 feet AGL	MMPS: 1. Hand Deployed Pilot Parachute. 2. Self-Set Drogue. 3. SL Drogue. 4. DBSL.	Y	N ²
4,500 feet AGL	RA-1 – MFF configuration.	Y	
5,500 feet AGL	MTV-III – Self-Set Drogue. ¹	Y	
¹ Not lower than. For exits at the same altitude, conduct a “clear-and-pull”.			
² Optional until further engineering analysis can confirm safe or unsafe.			

NOTE: Minimum exit and opening altitudes are initially determined by parachute design specifications. Any new RAPPS will have minimum and maximum exit and opening altitudes addressed and defined by the approving authority during the RDT&E process.

(1) **DZ Size Criteria.** The size of the DZ required will be determined IAW AFI 13-217 and applicable Service/USSOCOM MSC publications for the operation planned.

(2) **Operations above 25,000 feet MSL.** MFF training will be conducted at altitudes that best balance the need for personnel safety and accomplishment of the mission, but will be limited to MFF RAPPS opening altitudes below 25,000 feet MSL based on current military safety assessments/confirmations.

Table 10-5. Maximum Exit Altitudes (Training) Over Land or Water.

Altitude	RAPPS	EAAD	
		Yes	No
35,000 feet MSL	Service common or Service approved tactical RAPPS. ^{1, 2}	Y	
25,000 feet MSL	RA-1 in the DBSL configuration.	Y	
24,500 feet MSL	Joint Precision Aerial Delivery System.	Y	
¹ Jumpers may exit at 35,000 feet MSL but will delay activation of their main canopy until they reach the approved deployment altitude for the type of Service common or Service approved tactical RAPPS they are jumping.			
² Openings above 25,000 feet MSL normally exceed parachute design specifications. Verify tactical RAPPS capability limitations before conducting extremely high altitude MFF operations.			

(3) A waiver to AFI 11-202V3 is required from AF Flight Standards Agency for unpressurized flights when conducting MFF operations above 25,000 feet MSL on USAF aircraft. SCs desiring to conduct MFF operations above 25,000 feet MSL must contact the AF Flight Standards Agency prior to conducting training.

Table 10-6. Maximum Opening Altitudes Over Land or Water.

Altitude	RAPPS	EAAD	
		Yes	No
25,000 feet MSL	MMPS (Military Phoenix-360 & High Glide-380).	Y	N ¹
25,000 feet MSL	TORDS/MTTB.	Y	
24,999 feet MSL	MC-4/MC-5 RAPPS.	Y	
24,999 feet MSL	RA-1. ²	Y	
22,000 feet MSL	MT-2.	Y	
¹ Optional for any of the MMPS SL configurations until further engineering analysis can confirm safe or unsafe.			
² Jumpers should use high capacity oxygen bottle system (3,000 pounds per square inch) in lieu of the Twim-53 bottles if opening above 17,500 feet AGL with the RA-1 in the MFF or DBSL configuration. Twin 53s may run out of oxygen.			

10-9. MFF Release Methods.

a. **MFF JMD Release.** A JMD release requires visual recognition of the HARP by the JM. A HARP is calculated for a HALO or HAHO jump and a request for an early green light (one-minute prior to the planned RP) must be submitted when requesting USAF aircraft. The JM must brief the jumpers not to jump on the green light, but to await for the JM to give the “GO” hand-and-arm signal. The JM is responsible for accuracy when using JMD release procedures. Whenever possible, a JMD release should be used to enhance MFF JM skills, however, there may be instances where USAF aircraft may not allow a JMD release.

b. **Navigator Directed Release.** A HARP is computed for a Navigator release when MFF operations are more complex, such as tactical HALO/HAHO operation or a multifaceted aerial delivery system drop. Multifaceted or large aerial delivery systems require Navigator directed release due to the positioning of the JM forward of the platform load. Visual confirmation of the DZ by the JM is not possible. When using Navigator directed release, JMs should still compute their own HARP and compare their computed RP with the aircraft Navigator’s prior to the drop.

10-10. Wind and Weather Restrictions.

a. There is no wind limit at exit altitude.

b. Ceiling/Visibility:

(1) For JMD operations, the JM can release on an off-set as long as he can reference where he is in relation to the DZ and HARP.

(2) The ceiling over the DIP must be a minimum of 1,000 feet AGL for HALO and HAHO operations during training.

(3) Transponders/beacons may be required and use will be based on restrictions and approved Notice to Airmen.

c. Table 10-7 depicts the maximum surface winds for MFF operations.

Table 10-7. Maximum Surface Winds for MFF Operations.

Type Jump	Type Operation	Type Parachute	Speed
Personnel, Land	MFF/Intentional Tree	RAPPS	18/22 Knots
Personnel, Tandem Passenger	MFF	RAPPS	18 Knots
Personnel, Tandem MTTB	MFF	RAPPS	18 Knots
Personnel, Water	MFF	RAPPS	18 Knots/*28 Knots

*For AFSOC units 25 knots only IAW AFI 11-231, *Computed Air Release Point Procedures*.

NOTE: Wind speeds vary from 18 to 28 knots per Service/USSOCOM MSC publications. Units jumping in wind speeds greater than 18 knots should only do so if the planned operation dictates and when justified by a command decision risk assessment.

10-11. Deliberate Water MFF Operations. USSOCOM MSCs are authorized to conduct deliberate water MFF operations. Conduct all deliberate water MFF operations using the conditions in paragraph 9-10 and the following additions:

a. When conducting joint deliberate water MFF operations, SCs must determine the minimum swimmer qualifications and exit altitudes based on the type of parachute system worn.

b. If the RAPPS are equipped with a RSL, the jumpers must ensure they disconnect the RSL once under a good canopy. This action will prevent the reserve from being activated if the main is cut away while in the water due to high winds, ease of recovery, etc.

10-12. Exit Procedures. USSOCOM Major Subordinate CDRs are encouraged to require all MFF jumpers to rehearse exit procedures immediately before the jump. Jumpers shown the correct movement procedures inside the aircraft and proper exit order/procedures builds muscle memory and confidence. Jumpers will practice and demonstrate proper procedures to the JMs satisfaction before every jump. Failure to rehearse exit procedures could result in a serious mishap.

a. **DBSL Exits.** A MFF jumper's exit procedure when jumping a RAPPs in the DBSL configuration is a totally different exit than what a MFF jumper normally experiences. A MFF jumper qualified to jump both the MFF and DBSL configuration must understand the correct theory, fundamentals, and procedures involved for a safe and controllable exit when jumping a RAPPs in the DBSL configuration. Constant refresher training is a must.

b. **MTTB Exits.** The MTTB system must be 50 lbs. heavier than the MTM and will be equipped with an EAAD set to activate the bundle reserve no lower 1,000 feet AGL. Minimum and maximum altitudes are the same as passenger operations. MTTB safety personnel will be present on all MTTB operations to assist each MTM. Safety personnel will remove the safety straps on the MTTB and assist the MTM in attaching the MTTB prior to the door or ramp opening. When available, there will be a drogue setter responsible for maintaining control of the drogue during exit. The MTM is responsible for exiting his MTTBS when given the command "GO" by the JM.

WARNING: Never release a drogue prior to exit, to do so would create an "out-of-sequence" opening and could cause a malfunction.

10-13. Refresher Training. MFF operations are inherently dangerous. Emergencies may occur before or during takeoff, during flight, while in free-fall, or during canopy decent and landing. Refresher training initiates a conditioned response to react to an emergency and if not regularly refreshed, becomes perishable. Refresher training must include performance-oriented training with special emphasis on EPs and the actions required to respond successfully to any situation. Refresher training will take place before each MFF operation. The duration of training should be commensurate with the time between airborne operations and, at the very least, until each jumper is confident in his EP skills. To be considered current, a MFF jumper must be qualified, on active parachute status, and completes the MFF refresher requirements described in applicable Service/USSOCOM MSC publications.

a. **MFF and DBSL Jumper Currency.** Any MFF jumper who has not performed a MFF or DBSL jump within the previous 180-days is considered "non-current" and must complete a MFF/DBSL refresher training program IAW applicable Service/USSOCOM MSC publications. Refresher training is always conducted to accommodate the least experienced jumper in the group.

b. **MFF JM Currency.** Any MFF JM who has not performed PJM or AJM duties within the previous 180-days, where at least one MFF jumper actually exited the aircraft, is considered non-current and must complete a MFF JM refresher training program IAW applicable Service/USSOCOM MSC publications. To be considered current, the JM need not exit the aircraft when the above conditions are met (static JM); in this case the JM may track the event for JM currency purposes but will not log the duties of a MFF JM as a jump.

10-14. SAT. SAT is applicable to all MFF jumpers and must be conducted within 48-hours prior to any MFF operation. At a minimum, SAT will consist of the JM briefing, aircraft specific procedures, exit procedures, EPs, canopy entanglement procedures, and landing procedures.

The JM must ensure all MFF jumpers understand all aspects of SAT and the MFF operation. The JM is responsible to ensure jumpers are qualified and current, in the designated uniform, have appropriate equipment, and equipment is properly rigged. This should be completed prior to SAT. The JM should also observe all jumpers to ensure they understand and are fully involved in practicing all EPs they could encounter. Detailed SAT will be conducted IAW applicable Service/USSOCOM MSC publications.

10-15. Transition Training. USSOCOM MFF qualified personnel will complete transition training prior to utilizing a RAPPs for which they were not initially trained to operate. Pre-jump training will be given by a current MFF JM, qualified and current on the RAPPs to be jumped, no earlier than 48 hours prior to conducting MFF operations. MFF jumpers will meet or exceed the following transition training:

a. Attend an equipment familiarization class to include sizing, donning and doffing procedures, primary deployment method and procedures, cutaway handle location, reserve ripcord location, EPs, and EAAD familiarization.

b. Attend an EP class and suspended harness drills.

c. Attend a CE rigging (with CE, weapon, and oxygen) class.

d. Attend a canopy control and grouping under canopy class.

e. Attend an oxygen familiarization and parachute pack class.

f. Participation in live MFF jumps is required to complete the transition process. The following are guidelines for RAPPs transition training. Subordinate CDRs will determine the appropriate level of transition training to meet mission specific requirements:

(1) Perform one daytime jump without CE, stressing a stable exit, picking up a heading, and deploying the main canopy (per deployment method) at the prescribed pull altitude (± 500 feet) while maintaining a heading.

(2) Perform one daytime jump with CE and weapon, stressing a stable exit, picking up a heading, executing a left and right turn, stopping on heading, and deploying the main canopy (per deployment method) at the prescribed pull altitude (± 500 feet) while maintaining a heading, and landing within 50 meters of the Group Leader or DIP.

(3) Perform one nighttime jump without CE and one nighttime jump with CE, weapon, and complete oxygen system, deploying the main canopy (per deployment method) at the prescribed pull altitude (± 500 feet) while maintaining a heading, and landing within 50 meters of the Group Leader or DIP.

g. MFF qualified staff personnel (i.e., HQ personnel) will perform no less than two successful daytime jumps without CE, stressing a stable exit, picking up a heading, deploying the main canopy (per deployment method) at the prescribed pull altitude (± 500 feet) while maintaining a heading, and landing within 50-meters of the Group Leader or DIP. Additional PoE may be added per applicable Service/USSOCOM MSC METLs.

10-16. Emergency Procedures (EP). MFF EP training applies to all MFF qualified jumpers, MTMs, and tandem passengers. It is recommended units conduct annual MFF EP training during the recurring (periodic) MFF operational pause. EP training will consist of classroom training and a practical suspended harness or VWT training including several parachute/post-opening malfunction procedures wearing an authorized helmet, goggles, gloves, and oxygen mask, if available. The hanging harness or VWT training must be administered by a qualified and current MFF JM/MTM qualified on the specific RAPPS used. EP training will be documented and placed in the individuals jump log.

NOTE: At any time the JM may stop a jumper from progressing to the next level of EP training if he determines the jumper has not satisfactorily performed the task.

a. **Decision Altitude for MFF Jumpers.** A MFF jumper must make the decision to initiate EPs no lower than 2,500 feet AGL. This altitude corresponds with the red zone on most altimeters. If it has been determined that a malfunction exists, initiate the proper EP at that time. Do not wait to reach 2,500 feet AGL. Cutaway must be performed by 2,000 feet AGL. Jumpers must not initiate cutaway procedures below 1,000 feet AGL. If the malfunction cannot be resolved and cutaway procedures have not been initiated by 1,000 feet AGL, the jumper must immediately deploy his reserve parachute. Jumpers should use the canopy controllability check to assist with their decision, if needed.

b. **Decision Altitude for MTMs.** A MTM must make the decision to initiate EPs no lower than 3,000 feet AGL. If it has been determined that a malfunction exists, initiate the proper EP at that time. Do not wait to reach 3,000 feet AGL. Cutaway must be performed by 2,500 feet AGL.

c. Detailed EPs will be conducted IAW applicable Service/USSOCOM MSC publications.

NOTE: Visibility of the emergency handles/pillows can be greatly reduced when jumping a passenger.

NOTE: Locating the emergency handles/pillows can be accomplished by locating the main lift web of both sides of the harness and tracing down to the cable housing, search for the cables.

10-17. Reporting Requirements. All USSOCOM MSCs involved in MFF operations will report every MFF jump and any malfunctions/incidents of MFF RAPPS using a DD Form 1748-2.

a. If a serious injury or death results from a malfunction/incident, Class A or B mishap, an initial report via e-mail will be sent to the Director, USAQMS, ADFSD, Fort Lee, VA within 12 hours of the malfunction to usarmy.lee.tradoc.mbx.lee-adfsd-mrb@mail.mil.

If e-mail capability is not available, call DSN 687-3178/4794 or (804) 734-3178/4794 (commercial) to report by telephone. The initial report will include sufficient facts, insights, and tentative ideas on the cause and mechanics of the malfunction/incident in order for CDRUSAQMS to request grounding of the affected equipment, if required.

b. See paragraph 8-2 for additional DD Form 1748-2 reporting requirements by Component.

c. All USSOCOM MSCs involved in airdrop activities will submit monthly airdrop activities using a DD Form 1748-3 via the USAQMSs web site at <https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fbook%2Fgroups%2Fai%2Frdrop-malfunction-and-safety-analysis-review-board>. Subordinate reports will be consolidated through respective upper echelon commands IAW AR 59-4/OPNAVINST 4630.24D/AFJ 13-210(I)/MCO 13480.1D.

APPENDIX A

TASKS, CONDITIONS AND STANDARDS FOR BASIC SL TRAINING

SL, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Identify the Components of the SL Main and Reserve Parachute System.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system.</p> <p>Standard: The student must identify the components of the SL main and reserve parachute system utilizing proper nomenclature.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-2. Don and Adjust the MC-Series SL Main and Reserve Parachute with or without CE.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, rucksack, H-harness or harness single point release, 15 foot hook pile tape (HPT) lowering line and appropriate rigging supplies, perform mass donning techniques utilizing the two-person rule (buddy system).</p> <p>Standard: The student must:</p> <ol style="list-style-type: none"> Describe the proper nomenclature of SL components. Inspect the rucksack and related equipment for serviceability. Rig a front-mounted rucksack for use in SL parachute operations. Don and adjust the MC-series SL main and reserve parachute. Execute procedures for rigging, donning, and lowering the front-mounted rucksack. Receive a JMPI with no major deficiencies. Demonstrate proper procedures for jettison the front mounted rucksack. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-3. Identify and Utilize the Components, Anchor Line Cables, Troop Parachute Doors/Ramp, and Proper Exit Procedures from an Aircraft Mock-Up.	<p>Condition: Given a fixed wing aircraft mock up and a simulated scenario.</p> <p>Standard: The student must properly identify and utilize SL associated equipment IAW JM guidance/commands per simulated scenario.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-4. Control the MC-Series Main Parachute from a Suspended Harness.	<p>Condition: Given a SL jumper suspended in a MC-series parachute harness with risers and toggles.</p> <p>Standard: The student must properly respond to instructor commands on canopy control:</p> <ol style="list-style-type: none"> Run with the wind, hold into the wind, and prepare to land. Execute a right hand turn utilizing control toggles. Execute a left hand turn utilizing control toggles. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR BASIC SL TRAINING (Cont.)

SL, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-5. Demonstrate Proper Exit, Check Body Position, and Count from a SLT.	<p>Condition: Given a SL jumper in a SLT.</p> <p>Standard: The student must properly execute the five points of performance.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-6. Properly Execute a PLF During Ground Training.	<p>Condition: Given an open field, two-foot high PLF platform, side lateral drift apparatus, and/or a SLT.</p> <p>Standard: The student must properly execute a PLF by exposing and hitting the five points of contact.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-7. Perform Methods of Recovery Utilizing the CRA.	<p>Condition: Given a hand towed drag pad, an open field, a SL jumper with an authorized MC-series parachute system with the main parachute fully inflated.</p> <p>Standard: The student must properly release the main canopy utilizing one of the two methods of recovery from the drag by releasing a CRA.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-8. Demonstrate Techniques for Deploying the Reserve Parachute for Partial and Total Malfunctions.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a hanging harness, and a simulated emergency.</p> <p>Standard: The student must perform the correct EPs in response to a SL parachute malfunction.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-9. Execute the Procedures and Actions Taken to React to Collisions, Entanglements, and the Three Emergency Landings – Trees, Wires, and Water.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a hanging harness, and a simulated emergency.</p> <p>Standard: The student must perform the correct EPs in response to a SL parachute collision, entanglement, and emergency landings.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-10. Respond to Jump Commands and Execute Exits Utilizing the Mock Door/Ramp.	<p>Condition: Given an aircraft mock up and a simulated scenario.</p> <p>Standard: The student must perform the correct procedures as per the JMs guidance/commands.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR BASIC SL TRAINING (Cont.)

SL, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-11. Properly Respond to Jump Commands While Inside the Aircraft.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a jumpable aircraft at an altitude of least 1,250 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must properly respond to JMs guidance/commands.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-12. Demonstrate Proper Exit, Check Body Position, and Count from an Aircraft in Flight.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a jumpable aircraft at an altitude of least 1,250 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must perform a proper exit by keeping their feet and knees together, knees locked to the rear pointing the balls of their feet toward the ground, eyes open, chin on chest, elbows tight against their sides with both hands over the edge of the reserve parachute with their fingers naturally spread. Count to 4,000 (MC-6/7).</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-13. Control the SL Main Parachute During Decent.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a jumpable aircraft at an altitude of least 1,250 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must complete the exercise/procedure with no major safety violations.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-14. Properly Execute a PLF Upon Landing After Conducting a SL Parachute Jump.	<p>Condition: Given a SL jumper with an authorized MC-series parachute system, a jumpable aircraft at an altitude of least 1,250 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must properly execute a PLF by exposing and hitting the five points of contact.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

NOTE: USSOCOM MSCs retain the option of adding to or increasing the level of difficulty for a given task in order to preserve SC “PoE”. The above tasks, conditions, and standards serve as a lowest common denominator for training. Any individual attending another Service/USSOCOM MSC SL course is expected to fully comply with any additional or specific training events particular to that course in order to successfully graduate.

APPENDIX B

TASKS, CONDITIONS AND STANDARDS FOR SL JUMPMaster (JM) TRAINING

SL, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Introduction to the SL JM Course.	<p>Condition: Given a SL JM student, a classroom environment, an overview of course content and procedures, student grading and evaluation, and graduation requirements.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Describe the SL JM content. b. Identify the student grading and evaluation system and the graduation requirements for the SL JM course. c. Achieve a passing score (70%) on the SL JM nomenclature examination and the SL JM equipment rigging examination. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-2. Duties and Responsibilities of the JM Team.	<p>Condition: Given a SL JM student, a classroom environment, test materials, student handbook, and applicable handouts.</p> <p>Standard: The student must identify the qualifications, duties, and responsibilities of the JM team IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-3. Rig Individual Weapon and CE.	<p>Condition: Given a SL JM student, a classroom environment or an outside training area, Service/SC specific weapon, rucksack, rigging materials, and procedures.</p> <p>Standard: The student must rig the individual weapon and rucksack for an airborne operation with zero deficiencies IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-4. Duties and Responsibilities of the DZSO.	<p>Condition: Given a SL JM student, a classroom environment, a surveyed DZ, and a DZSO kit.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Identify the qualification requirements of the DZSO IAW the applicable listed references. b. Perform the duties and responsibilities of the DZSO IAW the applicable listed references. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-5. DZ Selection and Survey.	<p>Condition: Given a SL JM student, a classroom environment, an overview of the procedures for surveying a DZ, and AF Form 3823.</p> <p>Standard: The student must properly complete AF Form 3823 IAW AFI 13-217 and the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-6. Conduct SAT.	<p>Condition: Given a SL JM student and a simulated airborne operation scenario.</p> <p>Standard: The student must conduct SAT which includes the JM brief, pre-jump training, PLFs, mock door, and actions in the aircraft IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR SL JUMPMaster (JM) TRAINING (Cont.)

SL, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-7. Prepare Acquired Aircraft for Airborne Operations.	<p>Condition: Given a SL JM student, a classroom environment, test material, an actual or simulated aircraft, and applicable handouts.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Identify the characteristics and capabilities of an acquired aircraft IAW with the applicable listed references. b. Prepare selected aircraft for airborne operations IAW with the applicable listed references. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-8. Jump Commands and Actions in the Aircraft.	<p>Condition: Given a SL JM student, an actual or simulated aircraft.</p> <p>Standard: The student must demonstrate the correct jump commands and time warnings used aboard the acquired aircraft IAW with the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-9. Visual Navigation Aids.	<p>Condition: Given a SL JM student, a classroom environment, and visual navigation aids.</p> <p>Standard: The student must recognize the visual navigation aids used to mark a DZ during daytime and nighttime airborne operations IAW with the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications
1-10. Special Airborne Operations – Deliberate Water DZs, CARP with or without a CCT, GMRS, MPI, and VIRS.	<p>Condition: Given a SL JM student, a classroom environment, an actual DZ, and an overview of the characteristics and procedures for special airborne operations.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. The student must identify the requirements, equipment, and overall organizational requirements to conduct a deliberate water DZ operation IAW with the applicable listed references b. Establish, mark, and operate a CARP DZ IAW the applicable listed references. c. Establish, mark, and operate a GMRS DZ IAW the applicable listed references. d. Establish, mark, and operate a VIRS DZ IAW the applicable listed references. e. Discuss the purpose, requirements, DZ operations, advantages, and disadvantages of an MPI IAW the applicable listed references. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-11. Review Duties of the DZSO and DACO.	<p>Condition: Given a SL JM student, a classroom environment, and a review of the DZSO and DACO qualifications, duties, and responsibilities.</p> <p>Standard: The student must identify the qualifications, duties, and responsibilities of the DZSO and DACO IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR SL JUMPMaster (JM) TRAINING (Cont.)

SL, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-12. DZSO Practical Exercise.	<p>Condition: Given a SL JM student assigned as a DZSO, an actual DZ, a DZ safety team, and a DZSO kit.</p> <p>Standard: The student must establish a DZ IAW the DZ kit and the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-13. Conduct a JMPL.	<p>Condition: Given a SL JM student in a classroom environment, and a minimum of three jumpers rigged IAW the applicable listed references (at a minimum, one will be a Hollywood jumper and the other a CE jumper).</p> <p>Standard: The student must properly inspect three jumpers in sequence identifying all deficiencies within eight minutes IAW the student grading and evaluation criteria and the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-14. Conduct PWAC.	<p>Condition: Given a SL JM student, an actual aircraft or mock-up, test materials, and a talk through demonstration.</p> <p>Standard: The student must demonstrate the duties of the JM in flight during an airborne operation IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-15. Examinatio ns (SAT, DZSO, General Subjects, JMPL, and PWAC).	<p>Condition: Given a SL JM student, a written or practical exercise/examination.</p> <p>Standard: The student must achieve a passing score (70%) on all written examinations and receive a “Go” on all practical examinations to successfully graduate the SL JM course.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

APPENDIX C

TASKS, CONDITIONS AND STANDARDS FOR BASIC MFF TRAINING

MFF, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Pack the RAPPS in the MFF Configuration.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS.</p> <p>Standard: The student must, according to the applicable listed reference(s):</p> <ol style="list-style-type: none"> Identify the components of the RAPPS. Demonstrate proper packing procedures for the RAPPS. Ensure packing and all rigger checks are completed within 60 minutes. 	Student Grading and Evaluation Criteria, Applicable RAPPS Pack Manual, TSO, or other applicable Service/USSOCOM MSC Publications.
1-2. Activate the EAAD.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS with a functional EAAD.</p> <p>Standard: The student must inspect and set the EAAD IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-3. Don the RAPPS for a MFF Parachute Jump.	<p>Condition: Given a MFF basic student with a Service common or Service approved tactical RAPPS.</p> <p>Standard: The student must perform procedures to properly size and don the RAPPS IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-4. Rig Individual Weapon, CE, Oxygen, and NVDs.	<p>Condition: Given a MFF basic student, an individual weapon, CE, oxygen mask/bottle(s), NVDs, improved equipment attaching sling, quick releases, an HPT lowering line, and appropriate rigging supplies.</p> <p>Standard: The student must identify and rig the required MFF associated items; helmet, peltors, communication system, individual body armor, goggles, gloves, altimeter, weapon, oxygen mask/bottle(s), NVDs, and jumpsuit.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-5. Respond to Aircraft Procedures and Jump Commands During a MFF Jump.	<p>Condition: Given a MFF basic student, a simulated aircraft in a classroom environment, and during jump operations.</p> <p>Standard: The student must properly react to aircraft procedures and jump commands IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-6. React To In-Flight Emergencies During a MFF Jump.	<p>Condition: Given a MFF basic student, an aircraft or an aircraft mock-up and an actual or simulated emergency during aircraft flight.</p> <p>Standard: The student must demonstrate the knowledge and ability to perform corrective measures for an inflight emergency IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.

TASKS, CONDITIONS AND STANDARDS FOR BASIC MFF TRAINING (Cont.)

MFF, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-7. React To Emergencies While in Free- Fall.	<p>Condition: Given a MFF basic student, an aircraft or an aircraft mock-up and an actual or simulated emergency while in free-fall.</p> <p>Standard: The student must demonstrate the knowledge and ability to perform corrective measures for an emergency during free-fall IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-8. Perform Body Stabilization Techniques.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS, EAAD, jumpable aircraft at an altitude of least 9,500 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must conduct the following body stabilization techniques IAW the applicable listed references:</p> <ul style="list-style-type: none"> a. Conduct a stable poise or dive exit, or recover from any instability within 500 feet of the exit platform. b. Obtain a visual heading on a manmade or terrain feature on the horizon. c. Conduct one right controlled 360-degree turn starting and stopping on heading. d. Conduct one left controlled 360-degree turn starting and stopping on heading. e. Perform proper stability techniques and altitude awareness throughout the free-fall. f. Deploy main parachute at the prescribed altitude within ± 250 feet. 	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-9. React to RAPPS Deployment Emergencies During a MFF Jump.	<p>Condition: Given a MFF basic student, an aircraft or a suspended harness and an actual or simulated RAPPS deployment emergency after exit.</p> <p>Standard: The student must demonstrate the knowledge and ability to perform corrective measures for a canopy collision, entanglement, and dual deployment IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-10. React to RAPPS Post- Opening Emergencies During a MFF Jump.	<p>Condition: Given a MFF basic student, an aircraft or a suspended harness, and an actual or simulated RAPPS post opening deployment emergency after exit.</p> <p>Standard: The student must demonstrate the knowledge and ability to perform corrective measures for emergency landings, canopy collision, entanglement, and dual deployment IAW the applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.

TASKS, CONDITIONS AND STANDARDS FOR BASIC MFF TRAINING (Cont.)

MFF, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-11. Perform a RAPPS MFF Daytime HALO Jump with Weapon, CE, Oxygen, and NVD as Part of a Group.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS, EAAD, helmet, peltors, communication system, NVDs, goggles, altimeter, individual body armor, jumpsuit, aviator's kit bag, Parachutists Drop Bag (PDB), HPT lowering line, weapon, center mounted weapons system, oxygen mask, oxygen system portable, and safety equipment for a basic MFF jump; and an aircraft in flight at an altitude of least 9,500 feet AGL with a MFF Instructor, DZ, and all necessary support.</p> <p>Standard: The student must demonstrate the ability to properly don and rig the RAPPS, CE/PDB, and supplemental oxygen system, respond to aircraft procedures, signals, and jump commands while inside the aircraft to include pre-breathing oxygen and disconnecting from the six man oxygen console, perform a controlled dive or poised exit with no more than a 90-degree left or right off exit heading, react to aircraft emergencies during free-fall operations, obtain and maintain heading as designated by the Instructor, conduct one right and one left controlled 360 degree turn starting and stopping on heading, execute a high lift track for three to five seconds while maintaining a heading, perform proper stability techniques and altitude awareness throughout the free-fall, be prepared to react to emergencies while in free-fall, clear your airspace, signal a proper wave off and pull at the designated altitude while on heading, be prepared to react to emergencies while under canopy, react to emergencies associated with landing a RAPPS, lower the rucksack at 500-feet AGL, land within 200-meters of the DIP, recover the parachute and equipment, and report to the DZSO for accountability.</p>	<p>Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.</p>
1-12. Perform a RAPPS MFF Nighttime HALO Jump with Weapon, CE, Oxygen, and NVDs as Part of a Group.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS, EAAD, helmet, peltors, communication system, NVDs, goggles, altimeter, individual body armor, jump suit, aviator's kit bag, PDB, HPT lowering line, weapon, center mounted weapon harness, oxygen mask, oxygen system portable, safety equipment for a basic MFF jump, and an aircraft in flight at an altitude of at least 9,500 feet AGL with a MFF Instructor, DZ, and all necessary support.</p> <p>Standard: The student must demonstrate the ability to properly don and rig the RAPPS with associated equipment, respond to all aircraft procedures, signals, and jump commands, perform a controlled exit as part of a group, deploy the main canopy at the designated altitude, or at the designated time delay from exit and fly as a member of a group to the DIP, lower rucksack between 500 feet AGL and land within 100-meters to the designated group leader. To receive a "Go", the student must complete the exercise with no major safety violations.</p>	<p>Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.</p>

TASKS, CONDITIONS AND STANDARDS FOR BASIC MFF TRAINING (Cont.)

MFF, BASIC		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-13. Perform a RAPPS MFF Daytime HAHO Jump with Weapon, CE, Oxygen, and NVDs as Part of a Group.	<p>Condition: Given a MFF basic student, a Service common or Service approved tactical RAPPS, EAAD, helmet, peltors, communication system, NVDs, goggles, altimeter, individual body armor, jump suit, aviator's kit bag, PDB, HPT lowering line, weapon, center mounted weapon harness, oxygen mask, oxygen system portable, safety equipment for a basic MFF jump, and an aircraft in flight at an altitude of at least 9,500 feet AGL with a MFF Instructor, DZ, and all necessary support.</p> <p>Standard: The student must demonstrate the ability to properly don and rig the RAPPS with associated equipment, respond to all aircraft procedures, signals, and jump commands, perform a controlled exit as part of a group, deploy the main canopy at the designated altitude, or at the designated time delay from exit and fly as a member of a group to the DIP, lower rucksack between 500 feet AGL and land within 100-meters to the designated group leader. To receive a "Go", the student must complete the exercise with no major safety violations.</p>	<p>Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.</p>
1-14. Maneuver the RAPPS to a Designated Point on the Ground as a Member of a Group.	<p>Condition: Given a MFF basic student under a Service common or Service approved tactical RAPPS main canopy, EAAD, helmet, peltors, communication system, goggles, altimeter, aviator's kit bag, PDB, HPT lowering line, weapon, center mounted weapon harness, safety equipment for a basic MFF jump, and an aircraft in flight at an altitude of at least 9,500 feet AGL with a MFF Instructor, DZ, and all necessary support.</p> <p>Standard: The student must demonstrate the dynamics involved in canopy control and ultimately land within 50-meters of the designated landing area or the designated base man.</p>	<p>Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.</p>

APPENDIX D

TASKS, CONDITIONS AND STANDARDS FOR MFF JM TRAINING

MFF, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Introduction to MFF JM Training.	<p>Condition: Given a MFF JM student, course requirements, the student grading and evaluation criteria, and applicable listed references.</p> <p>Standard: The student must comply with the requirements of the MFF JM course and applicable listed references.</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-2. Compute the HARP for a HALO and HAHO Airborne Operation.	<p>Condition: Given a MFF JM student, wind direction, wind velocities, a DIP, map, protractor, pencil, and notepad.</p> <p>Standard: The student must:</p> <ol style="list-style-type: none"> Calculate and plot the HALO HARP and personnel release point (PRP) within +/- 300 meters in 20-minutes. Calculate and plot the HAHO HARP and PRP within +/- 500 meters and calculate the magnetic compass heading to the DIP within +/- three degrees in 30 minutes or less. 	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-3. Calculate and Set the Altimeter for MFF Airborne Operations.	<p>Condition: Given a MFF JM student, an altimeter, the DZ field elevation, and DAF elevation.</p> <p>Standard: The student must calculate and set the correct setting on the altimeter to within +/- 100 feet</p>	Student Grading and Evaluation Criteria and Applicable Component/Service Specific Regulatory Guidance.
1-4. Compute and Set the Military EAAD for MFF Airborne Operations.	<p>Condition: Given a MFF JM student, an EAAD, Absolute Adjustment Calculator (wiz wheel or software version), pen or pencil, and notepad.</p> <p>Standard: The student must:</p> <ol style="list-style-type: none"> Calculate the proper EAAD setting within +/- two mbar, mode and activation altitude MSL and AGL. Set the EAAD to the proper setting and complete all tasks for Service/Component specific EAADs. Calculate pull altitude in AGL. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-5. Complete the MFF JM Academic Examinations.	<p>Condition: Given a MFF JM student, an altimeter, a nomenclature handout, an EAAD, an Absolute Adjustment Calculator (wiz wheel or software version), the DZ field elevation, DAF elevation, wind direction, wind velocities, a DIP, map, protractor, pencil, and notepad.</p> <p>Standard: The student must receive a "Go" IAW the applicable listed references and the MFF JM course Student Grading and Evaluation Criteria on the following examinations:</p> <ol style="list-style-type: none"> EAAD (to include pull-altitude). Free-Fall Altimeter. HALO Calculations. HAHO Calculations. Nomenclature. 	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR MFF JM TRAINING (Cont.)

MFF, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-6. Perform JMPI of the RAPPs in the MFF Configuration.	<p>Condition: Given three MFF jumpers, one jumper rigged Hollywood (without CE or oxygen), one jumper rigged with CE, and one jumper rigged with CE, weapon, and oxygen.</p> <p>NOTE: Equipment used will be Service/USSOCOM MSC approved tactical RAPPs, oxygen systems, and MFF ancillary equipment.</p> <p>Standard: The student must conduct a JMPI of three jumpers within six minutes.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-7. Identify the Qualifications, Duties, and Responsibilities of the JM and DZSO Teams.	<p>Condition: Given a MFF JM student, an actual or simulated full mission profile scenario from the unit area, DAF, during flight, and on the DZ.</p> <p>Standard: The student must:</p> <ol style="list-style-type: none"> Describe the duties and responsibilities of all personnel assigned to conduct a MFF operation. Describe the actions taken in the unit area. Describe the actions taken at the DAF. Describe the actions taken during flight. Describe the actions taken on the DZ. Conduct SAT. Conduct MFF refresher training. 	ATP 3-18.11, TC 18-11, and/or Applicable Service/USSOCOM MSC Publications.
1-8. Review Canopy Control (HALO and HAHO).	<p>Condition: Given a MFF JM student, a classroom environment, and an overview on canopy control techniques for HALO and HAHO operations.</p> <p>Standard: The student must:</p> <ol style="list-style-type: none"> Describe the component parts of the RAPPs main and reserve canopies. Describe the canopy's theory of flight. Describe the dynamics involved in canopy control. 	ATP 3-18.11, TC 18-11, Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-9. React to MFF Emergencies.	<p>Condition: Given a MFF JM student, simulated equipment, and a simulated emergency.</p> <p>Standard: The student must perform the correct procedures in response to:</p> <ol style="list-style-type: none"> An emergency during aircraft flight. An emergency in free-fall. An emergency during parachute deployment. An emergency under canopy. An emergency during landing. An emergency while on the ground. 	Student Grading and Evaluation Criteria, and/or Applicable Service/USSOCOM MSC Publications.
1-10. Discuss MFF Proponency, Regulations and Future Concepts.	<p>Condition: Given a MFF JM student in a classroom environment, and an overview of proponency regulations.</p> <p>Standard: The student must identify and explain the MFF proponent, and applicable MFF regulations.</p>	DODD 5100.01, ATP 3-18.11, and/or Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS AND STANDARDS FOR MFF JM TRAINING (Cont.)

MFF, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-11. Issue Jump Commands and Hand and Arm Signals for MFF Airborne Operations.	<p>Condition: Given a MFF JM student, an aircraft, or an aircraft mock-up.</p> <p>Standard: The student must issue aircraft procedure hand and arm signals and jump commands IAW applicable listed references.</p>	ATP 3-18.11, TC 18-11, and/or Applicable Service/USSOCOM MSC Publications.
1-12. Review Oxygen Equipment and Procedures.	<p>Condition: Given a MFF JM student, an oxygen mask, a portable bailout oxygen system, and an oxygen console.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Explain equipment component parts and their nomenclature. b. Plan for a MFF oxygen airborne operation. c. Inspect for cleanliness and proper function of all oxygen equipment as one component part. d. Explain the physiological effects of a MFF oxygen airborne operation. 	Applicable Service/USSOCOM MSC Publications.
1-13. Conduct MFF Refresher Training.	<p>Condition: Given a MFF JM student in a classroom environment, and a scenario in which a MFF JM does not meet proficiency and currency requirements.</p> <p>Standard: The student must explain the task outlined in the applicable listed references in order to make a MFF JM current. Review EPs, aircraft procedures, DZ markings, VWT, RAPPS pack class, oxygen class, exits and body stabilization, aircraft EPs, CE rigging and canopy control; then successfully demonstrate, in the above order a HALO/Administrative/Non-Tactical, HALO/CE, HALO/CE/Oxygen/Nighttime jump.</p>	ATP 3-18.11, TC 18-11, and/or Applicable Service/USSOCOM MSC Publications.
1-14. Rig CE, Weapon, Oxygen, and NVDs, for MFF Airborne Operations.	<p>Condition: Given a MFF JM student in a classroom environment that has received a class on rigging CE, and has referenced ATP 3-18.11, TC 18-11, or other applicable listed references.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Describe the load limitations of the appropriate Service common or Service approved tactical RAPPS. b. Describe how to rig the appropriate Service/USSOCOM MSC's CE and weapons for MFF airborne operations. 	ATP 3-18.11, TC 18-11, and/or Applicable Service/USSOCOM MSC Publications

TASKS, CONDITIONS AND STANDARDS FOR MFF JM TRAINING (Cont.)

MFF, JM		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-15. Perform Primary and Assistant JM Duties During MFF Airborne Operations.	<p>Condition: Given a MFF JM student, the DAF and DZ elevation, and current wind data prior to the airborne operation, a map, protractor, paper, pencil, and a jumpable aircraft at an altitude of at least 5,500 feet AGL.</p> <p>Standard: The student must conduct pre-jump activity and a briefing IAW with ATP 3-18.11 and/or other applicable listed references and perform the duties listed below:</p> <ul style="list-style-type: none"> a. The student must calculate and plot the HARP for a HALO mission within ± 300 meters. b. The student must calculate the setting for the EAAD to within \pm two mbars tolerances. c. The student must calculate the altimeter setting to within ± 100 feet of tolerance. d. The student will JMPI one fellow student prior to the Instructor JMPI. All student JMPI deficiencies must be corrected prior to the Instructor JMPI. 	ATP 3-18.11, TC 18-11, and/or Applicable Service/USSOCOM MSC Publications.
1-16. Direct an Aircraft to the HARP.	<p>Condition: Given a MFF JM student, a jumpable aircraft at an altitude of at least 5,500 feet AGL, and the calculated HARP.</p> <p>Standard: The student must maneuver the aircraft by communications with the crew to a HARP within 300 meters.</p>	Student Grading and Evaluation Criteria and Applicable Service/USSOCOM MSC Publications.
1-17. Perform JMPI of a non-tactical COTS RAPPS.	<p>Condition: Given a MFF JM student and a non-standard COTS RAPPS.</p> <p>NOTE: Equipment used will be Service/USSOCOM MSC approved non-tactical COTS RAPPS.</p> <p>Standard: The student will conduct a familiarization JMPI of a non-tactical COTS RAPPS</p>	Applicable Service/USSOCOM MSC Non-Tactical COTS RAPPS JMPI Procedures.

APPENDIX E

TASKS, CONDITIONS, AND STANDARDS FOR
MILITARY TANDEM MASTER (MTM) (PASSENGER) TRAINING

MTM, Passenger		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Know Military Tandem Regulations and Procedures.	<p>Condition: Given a MTM student performing MTPS operations.</p> <p>Standard: The student must identify and explain military tandem regulations and procedures for both standard and non-standard aircraft.</p>	Applicable Service/USSOCOM MSC Publications.
1-2. Pack a MTPS.	<p>Condition: Given a MTM student and an authorized MTPS, and associated equipment.</p> <p>Standard: The student must identify MTPS components IAW the applicable listed references and the following:</p> <ul style="list-style-type: none"> a. Demonstrate proper packing procedures for the MTPS. b. Ensure all rigger checks are completed. 	Applicable MTPS Pack Manual, TSO, or other applicable Service/USSOCOM MSC Publications.
1-3. Rig Personnel CE, Weapon, and Oxygen for a MTPS Operation.	<p>Condition: Given a MTM student, CE, weapon, and an oxygen system.</p> <p>Standard: The student must:</p> <ul style="list-style-type: none"> a. Inspect the rucksack, weapon, and related CE for serviceability. b. Rig a rucksack for use in tandem parachute operations. c. Rig a weapon for use in tandem parachute operations. d. Execute procedures for donning and lowering a front mounted rucksack. 	Applicable Service/USSOCOM MSC Publications.
1-4. Conduct JMPL.	<p>Condition: Given a MTM student (MFF JM), an authorized MTPS and passenger.</p> <p>Standard: The student must properly JMPL a MTPS and passenger harness with and without ancillary equipment IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-5. Conduct Passenger Brief.	<p>Condition: Given a MTM student and tandem passenger.</p> <p>Standard: The student must complete the tandem passenger checklist IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-6. Respond to Aircraft Signals and Jump Commands.	<p>Condition: Given a MTM student, an actual aircraft, or an aircraft mock-up.</p> <p>Standard: The student must demonstrate proper response to aircraft procedure signals and JM commands with 100% accuracy IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-7. React to an Aircraft Emergency.	<p>Condition: Given a MTM student, an actual aircraft or an aircraft mock-up, and an actual or simulated emergency.</p> <p>Standard: The student must perform the correct procedures to an aircraft emergency IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS, AND STANDARDS FOR MILITARY TANDEM MASTER (MTM) (PASSENGER) TRAINING (Cont.)

MTM, Passenger		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-8. React to Emergencies During Free-Fall and Drogue Fall.	<p>Condition: Given a MTM student in a hanging harness or simulated environment, and a simulated emergency.</p> <p>Standard: The student must perform correct procedures for a simulated emergency during freefall and drogue fall IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-9. React to Emergencies Under Canopy.	<p>Condition: Given a MTM student and an actual or simulated emergency under canopy.</p> <p>Standard: The student must perform the correct procedures in response to an emergency under canopy IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-10. Perform the Following Jumps (Self Set Drogue).	<p>Condition: Given a MTM student, an authorized MTPS, a jumpable aircraft at an altitude of least 9,500 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must set the drogue within six seconds, maintain a heading ± 90 degrees; conduct a system check; conduct a left and right 360 degree turn; stop and starting on heading, and initiate the drogue release sequence at the proper altitude.</p> <ul style="list-style-type: none"> a. Conduct a tandem passenger daytime jump (slick) demonstrating the ability to self-set the drogue parachute. b. Conduct a tandem passenger jump terminal. c. Conduct a tandem passenger daytime jump with CE, weapon, and oxygen. d. Conduct a tandem passenger nighttime jump (slick) while wearing NVDs. e. Conduct a tandem passenger nighttime jump with CE, weapon, oxygen, and NVDs. 	Applicable Service/USSOCOM MSC Publications.
1-11. Maneuver the MTPS to the Designated DZ.	<p>Condition: Given a MTM student, an authorized MTPS, and associated equipment, an aircraft at an altitude of at least 9,500 feet AGL, a DZ, and all necessary safety equipment.</p> <p>Standard: The student must maneuver the canopy and land within 100 meters of the DIP.</p>	Applicable Service/USSOCOM MSC Publications.
1-12. React to Emergencies Associated with Landing (Under Canopy).	<p>Condition: Given a MTM student and an actual or simulated emergency.</p> <p>Standard: The student must perform the correct procedures in response to an emergency during landing IAW the applicable MFF parachuting TTPs.</p>	Applicable Service/USSOCOM MSC Publications.
1-13 Execute Landing.	<p>Condition: Given a MTM student and tandem passenger.</p> <p>Standard: The student must, prior to entering the landing pattern, communicate, rehearse, and execute successful tandem passenger landing procedures IAW passenger brief.</p>	Applicable Service/USSOCOM MSC Publications.

APPENDIX F

TASKS, CONDITIONS, AND STANDARDS FOR MTM (BUNDLE) TRAINING

MTM, Bundle		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-1. Know Military Tandem Regulations and Procedures.	<p>Condition: Given a MTM student performing MTTBS operations.</p> <p>Standard: The student must identify and explain military tandem regulations and procedures for both standard and non-standard aircraft.</p>	Applicable Service/USSOCOM MSC Publications.
1-2. Pack a MTPS.	<p>Condition: Given a MTM student, an authorized MTTBS, and associated equipment.</p> <p>Standard: The student must identify the MTPS main personnel parachute components IAW the applicable listed references.</p> <p>a. Demonstrate proper packing procedures for the MTPS main personnel parachute.</p> <p>b. Ensure all rigger checks are completed.</p>	Applicable MTPS Pack Manual, TSO, or other applicable Service/USSOCOM MSC Publications.
1-3. Rig Personnel CE, Weapon, and Oxygen for a MTTBS Operation.	<p>Condition: Given a MTM student, CE, weapon, and an oxygen system.</p> <p>Standard: The student must:</p> <p>a. Inspect the rucksack, weapon, and related CE for serviceability.</p> <p>b. Rig a rucksack for use in tandem parachute operations.</p> <p>c. Rig a weapon for use in tandem parachute operations.</p> <p>d. Execute procedures for donning and lowering CE (as applicable).</p> <p>e. Execute procedures for donning and lowering a rear-mounted rucksack (as applicable).</p>	Applicable Service/USSOCOM MSC Publications.
1-4. Conduct a MTTBS Inspection.	<p>Condition: Given a MTM student and an MTTBS.</p> <p>Standard: The student must conduct a MTTBS pre-jump inspection and fill out a MTTB inspection checklist no earlier than four hours prior to loading the aircraft.</p>	Applicable Service/USSOCOM MSC Publications.
1-5. Conduct JMPI.	<p>Condition: Given a MTM student, a MFF JM, and a MTTBS with or without ancillary equipment.</p> <p>Standard: The student must properly JMPI a MTTBS with and without ancillary equipment IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-6. Respond to Aircraft Signals and Jump Commands.	<p>Condition: Given a MTM student, an aircraft, or an aircraft mock-up.</p> <p>Standard: The student must demonstrate proper response to aircraft procedure signals and JM commands with 100% accuracy IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.

TASKS, CONDITIONS, AND STANDARDS FOR MTM (BUNDLE) TRAINING (Cont.)

MTM, Bundle		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-7. React to an Aircraft Emergency.	<p>Condition: Given a MTM student, an aircraft or an aircraft mock-up, and an actual or simulated emergency.</p> <p>Standard: The student must perform the correct procedures to an aircraft emergency IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-8. Perform the Following Jumps.	<p>Condition: Given a MTM student, an MTTBS, a jumpable aircraft at an altitude of least 9,500 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must execute the proper exit, pick up and maintain a heading plus or minus 90 degrees, conduct a systems check; make a left and right 360 degree turn, stopping and starting on heading, and initiate the drogue release sequence at the proper altitude.</p> <ul style="list-style-type: none"> a. Conduct a self-set drogue jump without a tethered bundle. b. Conduct a MTTB self-set drogue jump. c. Conduct a MTTB daytime jump (slick). d. Conduct a MTTB daytime jump with CE, weapon, and oxygen. e. Conduct a MTTB nighttime jump (slick) while wearing NVDs. f. Conduct a MTTB nighttime jump with CE, oxygen, and NVDs. 	Applicable Service/USSOCOM MSC Publications.
1-9. React to Emergencies During Free-Fall and Drogue Fall.	<p>Condition: Given a MTM student in a hanging harness or simulated environment and a simulated emergency.</p> <p>Standard: The student must perform correct procedures for a simulated emergency during free-fall and drogue fall.</p>	Applicable Service/USSOCOM MSC Publications.
1-10. React To Emergencies Under Canopy.	<p>Condition: Given a MTM student in a hanging harness or simulated environment and a simulated emergency under canopy.</p> <p>Standard: The student must perform the correct procedures in response to an emergency under canopy IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-11. Intentionally Release a Bundle While Under Canopy.	<p>Condition: Given a MTM student and an MTTB while under canopy or a simulated environment (hanging harness).</p> <p>Standard: While under canopy, the student must release the MTTB no lower than 500 feet AGL IAW the applicable listed references. In a simulated environment, the student must properly execute MTTB release procedures IAW the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-12. Maneuver the MTTBS to the Designated DZ.	<p>Condition: Given a MTM student, an authorized MTTBS, associated equipment, a jumpable aircraft at an altitude of at least 9,500 feet AGL, a DZ, and all necessary safety equipment and support.</p> <p>Standard: The student must maneuver the canopy and land within 100 meters of the DIP.</p>	Applicable Service/USSOCOM MSC Publications.

**TASKS, CONDITIONS, AND STANDARDS FOR
MTM (BUNDLE) TRAINING (Cont.)**

MTM, Bundle		
TASKS	CONDITIONS AND STANDARDS	REFERENCES
1-13. React to Emergencies Associated with Landing (Under Canopy).	<p>Condition: Given a MTM student in a hanging harness or simulated environment and a simulated emergency while preparing to land.</p> <p>Standard: The student must perform the correct procedures in response to an emergency during landing IAW MFF parachuting TTPs in the applicable listed references.</p>	Applicable Service/USSOCOM MSC Publications.
1-14. Conduct Drogue Setter Duties.	<p>Condition: Given a MTTBS and a jumpable aircraft while in flight.</p> <p>Standard: Properly set the drogue for a MTTB jumper without causing jumper interference or damage to the drogue.</p>	Applicable Service/USSOCOM MSC Publications.

GLOSSARY

SECTION I – ABBREVIATIONS AND ACRONYMS

ACC	Air Combat Command
ADEPT	Alternate Door Exit Procedures for Training
ADFSD	Aerial Delivery & Field Services Department
AF	Air Force
AFB	Air Force Base
AFJ	Air Force Journal
AFI	Air Force Instruction
AFSOC	Air Force Special Operations Command
AFTTP	Air Force Tactics, Techniques, and Procedures
AGL	Above Ground Level
AJM	Assistant Jumpmaster
AR	Army Regulation
ATC	Advanced Training Command
ATP	Army Techniques Publication
ATTN	Attention
AUL	Authorized for Use List
Bld	Boulevard
CARP	Computed Air Release Point
CC	Combatant Command
CCT	Combat Control Team
CDR	Commander
CDRUSSOCOM	Commander U.S. Special Operations Command
CDS	Container Delivery System
CE	Combat Equipment
CF	Conventional Forces
CFR	Code of Federal Regulations
CIN	Course Identification Number
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CJCSM	Chairman of the Joint Chiefs of Staff Manual
COI	Course of Instruction
COMNAVSPECWARCOMINST	Commander, Naval Special Warfare Command Instruction
CONUS	Continental U.S.
COS	Chief of Staff
COTS	Commercial off the Shelf
CR	Change Recommendation
CRA	Canopy Release Assembly
CRRC	Combat Rubber Raiding Craft
CRS	Cargo Release System
CRW	Canopy Relative Work

SECTION I – ABBREVIATIONS AND ACRONYMS (Cont.)

CTEG	Commander's Training and Education Guidance
CTL	Critical Task List
CYPRES	Cybernetic Parachute Release System
DACO	Departure Airfield Control Officer
DAF	Departure Airfield
d-bag	Deployment bag
DBSL	Double Bag Static Line
DIP	Desired Impact Point
DOD	Department of Defense
DODD	Department of Defense Directive
DODI	Department of Defense Instruction
DSN	Defense Switch Network
DZ	Drop Zone
DZSO	Drop Zone Safety Officer
DZSTL	Drop Zone Support Team Leader
EAAD	Electronic Automatic Activation Device
EP	Emergency Procedures
ETP	Exception to Policy
EXFIL	Exfiltration
FAA	Federal Aviation Administration
fps	Feet Per Second
FDO	Foreign Disclosure Office
FN	Foreign national
GCC	Geographic Combatant Command
GMRS	Ground Marking Release System
HAAMS	High Altitude Airdrop Mission Support
HAHO	High Altitude High Opening
HALO	High Altitude Low Opening
HARP	High Altitude Release Point
HDIP	Hazardous Duty Incentive Pay
HN	Host Nation
HPT	Hook, Pile, Tape
HQ	Headquarters
HR	Heavy Reserve
HzP	Hazard Pay
IAW	In Accordance With
INFIL	Infiltration
IP	impact point
JM	Jumpmaster
JMD	Jumpmaster Directed
JMPI	Jumpmaster Personal Inspection

SECTION I – ABBREVIATIONS AND ACRONYMS (Cont.)

JP	Joint Publication
JSAT	Joint SOF Assessment Team
JSD-J7	Directorate of Joint SOF Development
JSJR	Jumpmaster Spotted Jumpmaster Release
JSOC	Joint Special Operations Command
J7-T&E	Training & Education Deputy Directorate
J7-T&E-T	Individual Training Division
LC	Lead Component
MARSOC	Marine Corps Forces Special Operations Command
MC	Maneuverable Canopy
MCO	Marine Corps Order
MCoE	Maneuver Center of Excellence
MCRP	Marine Corps Reference Publication
METL	Mission Essential Task List
MFF	Military Free Fall
MFFI	Military Free-Fall Instructor
MFP-11	Major Force Program-11
MMPS	Multi-Mission Parachute System
MO	Malfunction Officer
mph	Miles Per Hour
MPI	Marked Point of Impact
MSL	Mean Sea Level
MT-2	Military Tactical-2
MTM	Military Tandem Master
MTPS	Military Tandem Parachute System
MTT	Mobile Training Team
MTTB	Military Tandem Tethered Bundle
MTTBS	Military Tandem Tethered Bundle System
MTV-III	Military Tandem Vector-III
NAVSEA	Naval Sea Systems Command
NCOIC	Non-Commissioned Officer In Charge
NDP	National Disclosure Policy
NPC	Navy Parachute Course
NSWC	Naval Special Warfare Command
NSWCEN	Naval Special Warfare Center
NVD	Night Vision Device
OCONUS	Outside the Continental U.S.
OIC	Officer In Charge
OPNAVINST	Chief of Naval Operations Instruction
OPR	Office of Primary Responsibility
OPSEC	Operations Security

SECTION I – ABBREVIATIONS AND ACRONYMS (Cont.)

ORM	Operational Risk Management
PDB	Parachutist Drop Bag
PEO	Program Executive Office
PFD	Personal Flotation Device
PJM	Primary Jumpmaster
PLF	Parachute Landing Fall
POA&M	Plan of Action & Milestones
POC	Point of Contact
PoE	Peaks of Excellence
POI	Program of Instruction
PRP	Personnel Release Point
PWAC	Practical Work in the Aircraft
RA-1	Ram-Air-1
RAPPS	Ram Air Personnel Parachute System
RFI	Ready for Issue
RDT&E	Research, Development, Test & Engineering
RMT	Realistic Military Training
RP	Release Point
RSL	Reserve Static Line
SAT	Sustained Airborne Training
SC	Subordinate Command
SME	Subject Matter Expert
SMU	Special Mission Unit
SL	Static Line
SLT	Swing Landing Trainer
SOD	Special Operations Detachment
SOF	Special Operations Forces
SOFA	Status of Forces Agreement
SOF AT&L	Special Operations Forces Acquisition, Testing, and Logistics
SOFBIS	Special Operations Forces Baseline Interoperable Standards
SO-P	Special Operations-Peculiar
SOP	Standard Operating Procedures
SOTEC	Special Operations Training and Education Conference
TAD	Temporary Additional Duty
TC	Training Circular
TDY	Temporary Duty
TM	Technical Manual
TO	Technical Order
TORDS	Tandem Offset Resupply Delivery System
TP	Tandem Phoenix
TPRS	Towed Paratrooper Retrieval System

SECTION I – ABBREVIATIONS AND ACRONYMS (Cont.)

TSO	Technical Standard Order
TSOC	Theater Special Operations Command
TTP	Tactics, Techniques and Procedures
USA	U.S. Army
USAF	U.S. Air Force
USAQMS	U.S. Army Quartermaster School
USASOC	U.S. Army Special Operations Command
USMC	U.S. Marine Corps
USN	U.S. Navy
U.S.C.	U.S. Code
USPA	U.S. Parachute Association
USSOCOM	U.S. Special Operations Command
VDZ	Virtual Drop Zone
VIRS	Verbally Initiated Release System
VWT	Vertical Wind Tunnel
WSVC	Wind Streamer Vector Count
YPG	Yuma Proving Grounds

SECTION II – DEFINITIONS

AIRBORNE CDR/OIC/NCOIC. The senior CDR of all parachute/ground forces engaged in a specific airborne operation or a specified individual who may be designated as the Responsible Officer.

AIRDROP. Aerial delivery by parachute of supplies, equipment, and/or personnel from an aircraft in flight.

COMPUTED AIR RELEASE POINT. A computed air position at which jumpers, equipment, or supplies are released to land on a specified IP. Also called CARP.

CONTAINER DELIVERY SYSTEM. A system for aerial delivery of supplies and small items of equipment from low or high altitudes into a small area. Also called CDS.

DEPARTURE AIRFIELD CONTROL OFFICER. The Airborne CDR/OIC/NCOICs representative at the DAF who ensures efficient unit out loading operations and conformity with existing regulations. Also called the DACO.

DROP ALTITUDE. The altitude of an aircraft AGL at the time of an airdrop.

DROP ZONE. A specified area into which personnel, equipment, and/or supplies are delivered by parachute or free dropped.

DROP ZONE SAFETY OFFICER. Responsible for complete safety on the DZ and air space immediately in and around the drop area. He ensures the DZ is safe to receive jumpers, wind speeds are within proper limits, and medical coverage is available. Also called the DZSO.

INSTRUMENT METEOROLOGICAL CONDITIONS. Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling; less than minimums specified for visual meteorological conditions.

JUMPMaster. A graduate of a recognized JM course responsible for all process, procedures, and the assignment of key personnel required to execute a safe and effective airborne operation. Also known as the JM.

MEAN SEA LEVEL. The total distance in feet above sea level (i.e., ground elevation plus altitude in feet AGL).

MILITARY FREEFALL. An infiltration method in which a jumper exits an aircraft, freefalls, and deploys the main parachute without a SL.

PERMISSIVE PARACHUTING. Authorization for SL qualified personnel to jump while not occupying a parachute paid position.

SECTION II – DEFINITIONS (Cont.)

USSOCOM CERTIFIED COURSE. A USSOCOM COI/POI or curriculum that has been and maintains certification by USSOCOM J7-JSD. This course is available for SOF attendance and instructs on and meets the standards established in the SOFBIS CTL.

USSOCOM RECOGNIZED COURSE. A Service common COI/POI or curriculum that has been and maintains certification by the respective Service's training command. This course is available for SOF attendance. However, the USSOCOM MSC is responsible for any additional training that is not covered in the Service School but is needed to ensure compliance with SOFBIS. USSOCOM MSC will submit a memorandum for record to USSOCOM J7-JSD requesting the addition of any new course to be recognized after conducting an internal assessment of the COI/POI or curriculum.

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