

**BY ORDER OF THE COMMANDER
HQ AIR FORCE FLIGHT TEST CENTER
(AFMC) EDWARDS AFB CA 93524**



**AIR FORCE INSTRUCTION 11-410
HQ AIR FORCE FLIGHT TEST CENTER
Supplement 1
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Flying Operations

PERSONNEL PARACHUTE OPERATIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This supplement incorporates policy contained in OG Operating Instructions 11-6 and 11-7, 21 Mar 1996. This supplement specifies procedures for conducting personnel parachuting operations by Air Force Flight Test Center (AFFTC) personnel. It prescribes specific parachuting management and operations procedures to be used by all AFFTC personnel who will be under the operational control of the Test Parachutist Program (TPP).

AFI 11-410, 1 March 1997 and AFI 11-410/AFMC Sup 1, 18 May 98 are supplemented as follows:

2.2. This supplement applies to all military parachuting activities performed by parachutists under the operational control of the AFFTC TPP. This supplement does not apply to tenant organizations.

3.4.3.1. The TPP manages, trains, and ensures currency and proficiency of all AFMC parachutists assigned to the AFFTC. The TPP consists of a core cadre of six test parachutists and a civilian OIC, who are responsible for the operation and maintenance of the entire program. The core cadre can be drawn from the Survival, Evasion, Resistance, and Escape (SERE) Specialist, Life Support Technician, Parachute and Fabrication Specialist, and Aerospace Physiological Technician career fields (IAW the Jan 1997 Special Duty Assignment package approved by HQ USAF/XOO). Attached parachutists will augment the core cadre. An attached parachutist is an AFFTC parachutist who is not directly assigned to the TPP, but jumps as part of the TPP in varying capacities. Attached parachutists are selected because of some unique quality, such as, special experience or expertise they can offer the TPP. Attached parachutists maintain required currencies for the level of training they have attained. Attached parachutists will become fully qualified test parachutists after completing all required training, the same as core cadre members. Attached test parachutists are required to support test missions as necessary. IAW the Special Duty Assignment package, the three SERE Specialists assigned to the 412 OSS SERE Training section are required to be attached parachutists who must be upgraded to become test parachutists. Attached parachutists will be under operational control of the TPP during personnel parachute operations and related activities. The TPP conducts B-22 parachuting operations to instill confidence and demonstrate post egress procedures to aircrews attending AFFTC survival continuation training. The TPP is also required to maintain expertise to conduct joint service airborne operations. The TPP trains and maintains an

AFFTC Parachute Demonstration Team for events in and around the Edwards AFB area. The TPP maintains proficiency and exposure with selected personnel parachute systems and related equipment in use by other DOD agencies to provide joint test and evaluation capability.

4.14.10. The TPP OIC will be parachutist rated, and should be Military Freefall (MFF) qualified. and on jump status.

4.14.13. The TPP Squadron Commander, TPP OIC, and Jump Examiners are authorized to approve pre-planned jumps.

4.19. The OIC is a civilian position, hereafter designated as Chief, Test Parachutist Program.

4.19.8. (Added-AFFTC) Promote TPP capabilities to current and potential customers and keep the Superintendent of the TPP informed of upcoming test requirements.

4.19.9. (Added-AFFTC) Keep the squadron commander and DFO informed of the status of operations and training.

4.19.10. (Added-AFFTC) Select test parachutist candidates. The following information will be used to weigh candidates potential for entering the program:

- Recommendations by the individual's unit commander.
- Desire/initiative of the candidate. Each candidate must supply a resume detailing past experience, training, and explanation of why he or she can be an asset to the TPP. The resume package will supply a copy of the individuals last five EPR/OPR's.
- Interview with the candidate's supervisor to assess the candidate's work habits and to determine the accessibility the TPP will have for that person's training/support.
- Candidate's physical condition.
- Candidate's physical composition to satisfy program requirements to meet 5 to 95-percentile population makeup.

4.19.11. (Added-AFFTC) Approve visiting parachutists to perform parachute operations with the AFFTC.

4.19.12. (Added-AFFTC) Approve all changes or modifications to the parachute equipment list prior to implementation.

4.20.8.1. (Added-AFFTC) The Parachutist Information File (PIF) will be composed of Sections I-IV. Section I will contain current information; Section II will contain permanent information; Section III will contain frequently used AFI's, OI's, Field Manuals, etc.; and Section IV will contain parachuting manuals, checklists, and T.O.'s required to accomplish operations.

4.20.9. (Added-AFFTC) The TPP Superintendent is responsible for the NCOIC duties as described in the subparagraphs of 4.20. In addition, the Superintendent will serve as liaison with the Chief, TPP and other agencies in support of the TPP mission.

4.21.7. (Added-AFFTC) Attend and/or complete the requirements of the Quarterly Parachutist Meeting prior to next jump.

4.21.8. (Added-AFFTC) Parachutist not directly assigned to the Air Force Flight Test Center (AFFTC) or authorized to jump with the AFFTC with a Memorandum of Agreement, may participate in parachuting operations by complying with the following criteria. Provide a letter from their commander with:

- Authorization to participation in jump operations for a specified time period
- Verification of formal training qualifications
- Verification of jump currency to include emergency procedures
- Attachment 1, Aeronautical orders for parachuting duties
- Attachment 2, AF Form 702, Individual Physiological Training Record or AF Form 1274, Physiological Training card (for freefall jumpers only)
- Attachment 3, AF Form 1042, Medical Recommendation for Flying or Special Operational Duty (or equivalent medical form from other services)

Personnel will not be authorized to perform duties beyond their documented training and authorization. Visiting jumpers will not receive upgrade training or annual emergency procedure (EP) training without prior coordination. Additional EP's will be given as conditions warrant. Visiting Parachutists will receive a local area briefing.

6.2.1.1. A currency requirement is incurred when the parachutist is certified for a particular qualification listed in the tables.

Table 6.1.1. (Added-AFFTC) Parachutists' Currency Requirements

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Static Line qualified	Static line Combat Equipment jump	1/90
Military Free Fall qualified	Military System HALO jump	1/90
Military Free Fall qualified	HALO combat equipment jump	1/90
Military Free Fall qualified	HALO oxygen/combat equip jump	1/180
Military Free Fall qualified	Military System HAHO jump	1/365
Advanced Military Free-Fall qualified	Advanced Free Fall Maneuvering jump	1/90
Jumpmaster qualified	Static line mission	1/90
Jumpmaster qualified	Freefall mission	1/90
DZC qualified	DZC a complete jump mission	1/90
MFF Photographer	Camera jump	1/90
All Parachutists	Emergency Procedures (EP) Lab	1/90

Table 6.1.2. (Added-AFFTC) Parachutists' Currency Requirements for Training Support

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Training Support qualified	B-18/B-22/C-12 parachute jump	1/90
Training Support qualified	Full aircrew equipment jump	1/90
Training Support qualified	ACES II Seat kit (<=10 sec delay)	1/90
Training Support qualified	Aircrew parachute EP Lab	1/90

Table 6.1.3. (Added-AFFTC) Parachutists' Currency Requirements for Test Parachutist

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Test Parachutist qualified	Live EP: Cutaway jump	1/365
Test Parachutist qualified	Live EP: Reserve hand deploy jump	1/365

Table 6.1.4. (Added-AFFTC) Parachutists' Currency Requirements for Tandem Qualification

POSITION	TRAINING ITEM	NUMBER/FREQUENCY
Military Tandem Master	Tandem jump	1/90
Military Tandem Master	Tandem EP lab	1/90

Table 6.2.1. (Added-AFFTC) Basic Proficiency Training Events.

POSITION	TRAINING ITEM	QUARTERLY
Static Line Qualified	Static Line Jump	2
		SEMI-ANNUAL
Free Fall qualified	Free Fall Jump	75
Military Free Fall qualified	Military System HALO jump	4
Advanced Military Free Fall qualified	Advanced Free Fall Maneuvering jump	16
Jumpmaster qualified	Freefall mission	6
Instructor/AMF Trainer qualified	Advanced Military Free-Fall jumps	48
MFF Photographer	Camera jump	24
All Parachutist	Physical Fitness Test (Table 6.2.3.)	1

Table 6.2.2. (Added-AFFTC) Parachutists' Proficiency Requirements for Training Support

POSITION	TRAINING ITEM	QUARTERLY
Training Support qualified	B-18/B-22/C-12 parachute jump	4

Table 6.2.3. (Added-AFFTC) Parachutists' Proficiency Requirements for Tandem Qualification

POSITION	TRAINING ITEM	QUARTERLY
Military Tandem Master	Tandem jump	2

Table 6.2.4. (Added-AFFTC) Physical Fitness Requirements (See Notes)

EXERCISE	POINTS PER REPETITION	MINIMUM REQUIREMENT
Running:	N/A	30 points
7 minute mile	20	N/A
8 minute mile	16	N/A
9 minute mile	13	N/A
10 minute mile	10	N/A
Pull ups	2	6 points
Sit ups	$\frac{3}{4}$	15 points
Push ups	$\frac{3}{4}$	10 points
Four count flutter kicks	$\frac{3}{4}$	15 points
Jumping Jacks	°	(10 points maximum)

Note 1: Physical Fitness Test Requirements. Parachutists must meet minimum requirements for each exercise, but may exceed any exercise requirement (except Jumping Jacks) to attain the required 100 points. Parachutists returning to status after being medically grounded due to an injury will complete the physical fitness test prior to resuming jump duties. This is done to demonstrate they are physically capable of returning to parachutist duties. The Chief, TPP can waive this requirement due to minor injury or short duration. It is highly recommended that individuals work out at least three times a week, and they are authorized to exercise during duty hours when workloads permit.

Note 2: Selection for Basic Parachute Training. If an individual from the AFFTC is being considered for basic parachute training the semiannual physical fitness test will be used for formal training qualifications with the following change: the three mile run must be within 24 minutes. Candidates must complete this test prior to selection and maintain qualification until the class start date, they must also demonstrate their physical condition one week prior to departure for training.

6.2.1.3. (Added-AFFTC) Proficiency Requirements. TPP parachutists trained in accordance with the TPP syllabus must be proficient in standard MFF and static-line operations for platform certification, as well as, life support and survival equipment test and evaluation. This breadth of experience and expertise requires a higher degree of proficiency to safely jump many parachute systems. Minimum proficiency requirements are supplemented in Table 6.2.

9.2.8.2. (Added-AFFTC) Parachute systems and equipment to be used in the TPP include military approved systems, AFFTC certified dissimilar parachute systems, and other test systems and equipment. Military approved systems are those that have been thoroughly tested/evaluated by a DoD agency and for which a technical order (TO) or manual has been published. Any dissimilar parachute systems or equipment used in the TPP will be classified as AFFTC Certified Systems and Equipment. During the initial certification process only qualified test parachutists may use that equipment until certification has been completed. The parachute system or equipment will receive a minimum of five successful jumps before being AFFTC Certified. A listing of all parachutist gear currently being used will be approved by the Chief, TPP, and will be maintained in the Parachutist Information File. The list will also reflect the status of the parachutes and equipment. Test items will be cleared for local use through a separate test plan IAW AFFTCI 95-1, AFFTC Safety Review.

10.3.1.1.2. (Added-AFFTC) Supervise and control visitors, observers, and vehicular movement on the drop zone or in the vicinity during actual jump operations.

10.3.1.1.5. (Added-AFFTC) The DZC will notify the drop aircraft of the number of parachutes spotted after opening during multiple lift operations. This will alert the aircraft crew and the jumpmaster of potential problems prior to releasing jumpers on subsequent passes.

10.3.1.1.6. (Added-AFFTC) Visually account for all jumpers before clearing drops on subsequent aircraft passes.

10.3.1.1.7. (Added-AFFTC) Modified time calls may be made to the DZC. The DZC will respond as specified in Table 10.1.

Table 10.1. (Added-AFFTC) DZC Radio Communication with Jump Platform and Required Action

TIME CALLS	DZC ACTION	DZC Call(s) TO AIRCRAFT
"3 minutes"	Stand by - Visually clear airspace and drop zone for hazards	Acknowledge 3 minute call and relay any pertinent information
"2 minutes"	Acquire current wind speed - Visually clear airspace and drop zone for hazards	Acknowledge 2 minute call - provide wind speed in knots
"1 minute"	Visually clear airspace and drop zone for hazards - Stop all vehicle movement	Acknowledge 1 minute - clear the aircraft to drop or call abort
"30 seconds"	Stand by - Visually ensure clear airspace and drop zone for hazards	None Required - Be prepared to call abort
"10 seconds"	Stand by - Visually ensure clear airspace and drop zone for hazards	None Required - Be prepared to call abort
"(Number) jumpers away"	Visually observe jumpers and keep drop zone free of hazards	Confirm number of jumpers away
(All canopies open)	Visually observe jumpers and confirm number of open canopies	Confirm number of open canopies against aircraft count
(All jumpers land)	Stand by - Visually observe jumpers and keep drop zone free of hazards	Confirm number of jumpers landed and accounted for

10.3.1.1.6. (Added-AFFTC) Perform a post-operations DZ inspection and recover all equipment and expended munitions.

10.3.5. (Added-AFFTC) Night parachuting operations are required for senior and master parachutist ratings, and may be conducted under the following guidelines:

- The landing point will be marked by lights.
- Each parachutist will wear a strobe light attached to the back of the helmet.
- Each parachutist will have an easily accessible whistle, signal flare, and small flashlight or chemical light.
- A primary and assistant DZC is required for night operations. Two qualified DZCs will be on the DZ during night operations.
- Particular care will be taken when driving vehicles on the DZ during hours of darkness. The DZC will not permit vehicles to be moving on or near the DZ when parachutists are in the air, and will ensure that only essential vehicle movement occurs at other times during night operations.
- All parachutists exiting on a given pass will be accounted for and known to be uninjured prior to parachutists being permitted to exit on subsequent passes.
- Radio communications are required for all night operations.

11.1.2.1. (Added-AFFTC) Standard airborne and HALO procedures will be used for all AFFTC jump operations. The jumpmaster may supplement these commands as determined by specific requirements of

test, test training, or contracted aircraft missions. The jumpmaster will brief these additional procedures to the aircrew, DZC, jumpers and data collection activities involved. The jumpmaster may use, but is not limited to, the time calls as specified in Table 11.1.

Table 11.1. (Added-AFFTC) Jumpmaster Time Calls and Required Action

TIME CALLS	JUMPMASER ACTION	PARACHUTIST ACTION
"3 minutes"	Give verbal and visual time call to pilot and jumpers	Check Equipment - receive pin check - remain in place - direct attention to Jumpmaster
"2 minutes"	Give verbal and visual time call to pilot and jumpers - relay ground winds - Visually clear airspace	Move as briefed for aircraft - direct attention to Jumpmaster
"1 minute"	Give verbal and visual time call to pilot and jumpers - Visually clear airspace - confirm clear to drop	Move to door area- direct attention to Jumpmaster
"30 seconds"	Give verbal and visual time call to pilot and jumpers - Visually clear airspace	Remain in place - direct attention to Jumpmaster
"10 seconds"	Give verbal and visual time call to pilot jumpers - Visually clear airspace	Assume position by door
"5,4,3,2,1, Go"	Give verbal and visual time call to pilot and jumpers	Assume final exit position - exit on Go
"(Number) jumpers away"	Inform aircrew that jumpers have exited	Accomplish training or test requirements

11.1.2.2. (Added-AFFTC) The jumpmaster will have direct communications with the pilot whenever safely possible. The jumpmaster may designate a radio or intercom relay.

11.1.3.6. If weather, time constraints, equipment problems, etc., prompt a change, the jumpmaster has the option of deviating from the pre-briefed AFMC Form 56, *Parachutist Jump Schedule*, during jump missions. Possible options should be discussed with the senior TPP parachutist on the mission and aircraft pilot prior to change. All effected personnel involved with the mission will be briefed before deviations are implemented. The jumpmaster will make the appropriate changes to the AFMC Form 56 prior to execution if possible. Deviations will not compromise the safety of the mission.

11.1.4.3. (Added-AFFTC) During aircraft emergencies when an emergency landing becomes imminent:

- The jumpmaster will ensure no parachutist is attached to the static line for static line operations.
- Time permitting the jumpmaster will ensure that all ARRs are disarmed or disconnected.
- All parachutists will ensure their lap belts are tightly fastened and their helmets are properly secured.

11.1.4.4. (Added-AFFTC) During aircraft emergencies when bailout is an option:

- Minimum bailout altitude is 1,000 ft AGL. Should an emergency bailout become necessary between 1,000 ft AGL and normal opening altitude, parachutists will exit and deploy their reserve parachute immediately after clearing the aircraft and other parachutists.

- Should bailout become necessary above opening altitude, parachutists will deploy the applicable parachute as briefed by the jumpmaster. Jumpmasters will consider factors such as mountainous terrain, day vs. night, winds aloft, etc. Normally jumpmasters will choose either a 5 second delay or freefall to planned opening altitude. Common sense always prevails once an emergency is encountered.
- Parachutists should make every effort to land close together after bailout to facilitate accounting for all parachutists and to assist any injured jumpers.
- Do not bailout unless directed to do so by the pilot or the jumpmaster.

11.1.5.3. One copy of AFMC Form 56, **Parachutist Jump Schedule**, will be maintained by the DZC, one copy with the Jumpmaster, and one copy will be given/faxed to the appropriate Ops desk of the flying organization for that mission.

Attachment 1**GLOSSARY OF TERMS*****Terms***

Attached Parachutist-An AFFTC parachutist who is not directly assigned to the TPP, but jumps as part of the TPP. Attached parachutists are selected because of some unique benefit such as, special experience or expertise, which they offer the TPP.

Automatic Ripcord Release (ARR)-A mechanical or pyrotechnic device used to actuate a main or reserve parachute.

B-18, B-22, & C-12-Standard USAF aircrew emergency back and chest style parachutes with a 28-foot round canopies, modified harness with front mount "D" rings to allow use of reserve parachutes. It is used by the TPP for freefall testing and training.

Parachute Jump Examiner-A senior or master parachutists who conducts periodic evaluations of all aspects of parachute operations. The Director of Flight Operations (DFO) appoints Examiners by letter.

Pin Check-A pre-exit procedure accomplished 2 to 3 minutes prior to jumping. Each jumper will have a fellow jumper visually check the main and reserve parachute deployment handle, closing pins, canopy release assemblies, and attached equipment for proper routing, seating, and accessibility.

Reportable Incident-An incident is reportable if it involves any of the following:

- A fatality.
- Any malfunction requiring deployment of the reserve parachute.
- Any parachute deployment resulting in property damage.
- Any injury incurred from parachuting requiring other than superficial medical treatment or which results in the parachutist being unavailable for duty more than 24 hours.

Test Parachutist-A parachutist who has completed HQ AFMC approved AFFTC test parachutist mission training.

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Commander