

Emergencies of various types may arise during the conduct of any airborne operation. You must learn to recognize an emergency situation and know the proper action to take should one occur. Emergencies may occur in the aircraft before takeoff, during takeoff, and flight, prior to normal exit and in the air during free fall. Danger areas and emergency procedures are:

Certain precautions are always taken before takeoff to insure the greatest degree of safety in the event of a crash during takeoff. The precautions and procedures you should employ are as follows:



- Learn the locations of emergency exits and how to open them.
- Secure all loose items.
- Wear helmet.
- Fasten seatbelt securely.



- Tighten Seatbelt.
- Lean toward the forward part of the aircraft and brace for the crash.



- After Crashland:
- Clear the aircraft as soon as it stops and move well away from it in case of fire or explosion.
 - Check and make sure all men are away from the wreckage.
 - Report to headquarters by any means available.

MAIN OR RESERVE PARACHUTE DEPLOYMENT IN THE AIRCRAFT If you are seated when either your main or reserve parachute deploys, remain seated. Call the deployment to the attention of the jumpmaster, activate canopy releases, and start removing your parachute and equipment while remaining seated.

If your main or reserve canopy prematurely deploys while you are standing, immediately grab the canopy at or near the skirt to keep it from inflating, and try to gain control of the pilot chute. The jumpmaster or other jumpers will have to assist you to the front of the aircraft and help you in removing the deployed parachute.

IF YOU ARE STANDING IN THE VICINITY OF THE DOOR OR ON THE RAMP AND YOU EXPERIENCE A PREMATURE DEPLOYMENT, GET OUT. EXIT IMMEDIATELY. An immediate exit is your only course of action to minimize or avoid serious injury.

THE EMERGENCY EXIT. Emergency exits should be as prescribed in the local airborne SOP or as prescribed by the jumpmaster in coordination with the air crew. Emergency procedures may be as follows:

If you are below 500 feet above ground level (AGL), prepare for a crash landing.

If you have at least 500 feet AGL, but no more than 2,000 feet AGL, exit and deploy your reserve immediately.

Between 2,000 feet AGL and 3,000 feet AGL, exit and immediately deploy your main parachute.

Above 3,000 feet, you may be required to arm your timer or exit before timers are armed. In either case, free fall to 3,000 feet and deploy your main canopy.

After exit, you may be exposed to in-air emergencies in free fall. Normally, deploying your reserve parachute in the prescribed manner will take care of most in-air emergencies, but there are certain times when this procedure will not work. If a jumper at a lower altitude deploys his canopy directly below you while you are still in free fall, immediately initiate a turn to avoid being directly over the deployed parachute.

WARNING: THE LOWER PARACHUTIST HAS RIGHT OF WAY IN MILITARY FREE-FALL PARACHUTE OPERATIONS.

Emergencies may also occur at opening altitude when there is a complete malfunction of the parachute, a partial malfunction, or a minor deployment problem.

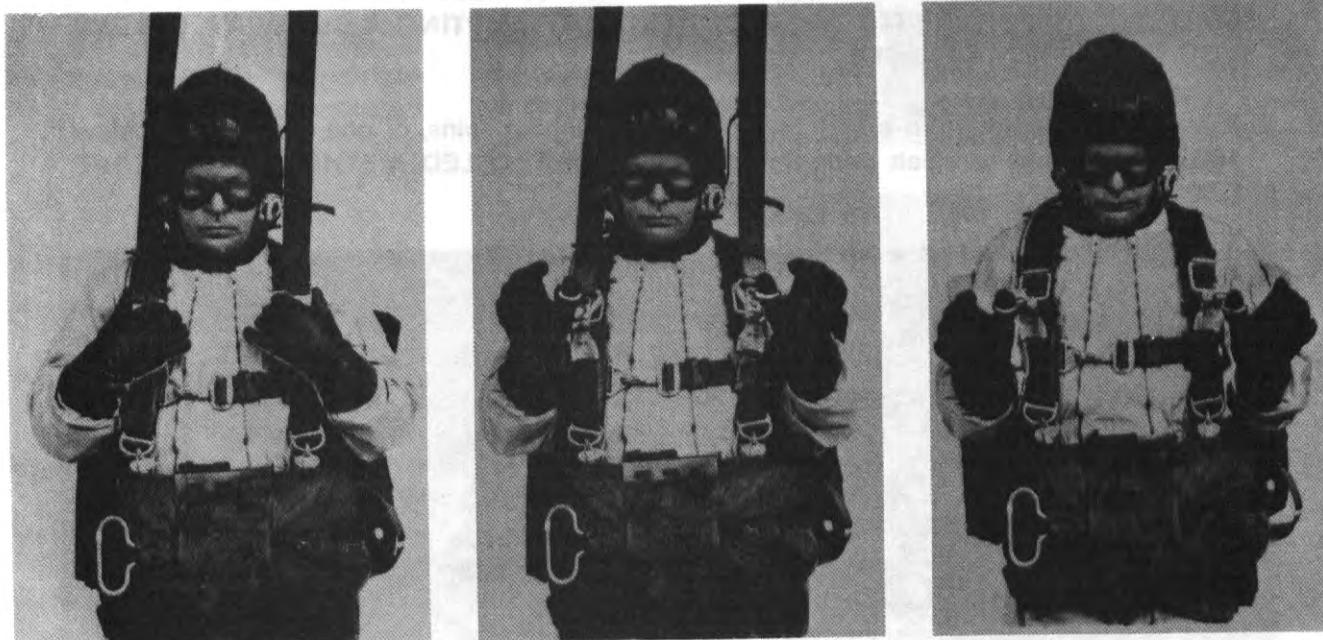
A complete malfunction occurs when the canopy remains in the packtray after the ripcord has been pulled. In the event of a complete malfunction, **DO NOT WASTE VALUABLE TIME IN ATTEMPTING TO CUT AWAY THE MAIN CANOPY PRIOR TO ACTIVATING THE RESERVE.** Look down at the reserve ripcord handle and pull it with the right hand immediately. Do not waste time trying to assume a specific body position. Check your canopy. If your main canopy should come out of the pack as a result of opening shock of the reserve, grasp the risers of the main canopy and pull it in as rapidly as possible gathering it in your arms or between your legs. Prepare to land. Grasping the suspension lines of the reserve with both hands and pulling yourself upright as in doing a pullup will give you a better landing position. Land, executing a parachute landing fall.

A partial malfunction occurs when the pack opens but the canopy does not fully or properly deploy. Because of its design, the MC-3 can have unusual malfunctions. Partial malfunctions may include streamers, semi-inversions, severe control line entanglements, and stabilizer hang up. The reserve procedures for partial malfunctions are the "cutaway" and the "controlled method of reserve deployment."

A "wad" or canopy "ball" indicates a severe control line or other internal entanglements. A stabilizer hang up occurs when a set of stabilizer panels do not fully deploy, and results in rapid spinning and increased rate of descent. In either of these cases or if you have a major deployment problem, are in a rapid spin which cannot be corrected, or if your rate of descent is more than it would be with a T-10 reserve, you must decide whether or not to execute a cutaway.

After checking your canopy and attempting, if feasible, to clear your malfunction, check your altimeter. The decision of whether or not to cutaway must be made no lower than 1800 feet AGL.

Because the MC-3 is a sensitive and precision-type canopy, and serious malfunction creates such a degree of spinning and increased rate of descent, a cutaway prior to activation of the reserve parachute above 1600 feet AGL is ESSENTIAL in order to avoid the possibility of serious injury or death.



Begin the cutaway no lower than 1600 feet AGL. DO NOT WASTE VALUABLE TIME WITH REPETITIOUS EFFORTS TO CLEAR A MALFUNCTION.

Throw away your main ripcord. If you cannot pull it through the cable housing, tuck the handle securely behind your right main lift web to avoid the possibility of the reserve or pilot chutes becoming entangled with the loose handle.

Place your legs and feet together and open both safety covers of the canopy release assemblies simultaneously with both hands.

Lock your thumbs in the lanyard cable releases.

Keeping your eyes on the reserve ripcord handle, pull vigorously forward and downward on the cable releases.

DO NOT ATTEMPT TO RESTABILIZE IN FREE FALL. PROTECT THE OPEN CANOPY RELEASE ASSEMBLIES BY PLACING YOUR LEFT ARM ACROSS THE RELEASES AND IMMEDIATELY PULL THE RESERVE RIPCORD VIGOROUSLY WITH YOUR RIGHT HAND AND THROW IT AWAY.

Check your canopy and canopy drift.

Prepare to land. Pull yourself upright by the suspension lines for a better landing attitude, and land, executing a good PLF.

REMEMBER - DO NOT ATTEMPT TO DEPLOY A RESERVE UNDER A PARTIAL MALFUNCTION OF THE MC-3 WITHOUT FIRST ATTEMPTING A CUTAWAY, UNLESS YOU ARE BELOW 1600 FEET AGL.

A malfunction resulting in a high rate of descent without spins, or one encountered below 1600 feet should be dealt with through the "CONTROLLED METHOD OF RESERVE DEPLOYMENT":



Place your left hand over the ripcord protector flap.



Pull the reserve ripcord and discard it.



Assist the opening of the pack flaps and gain control of the reserve parachute.

Lift the entire reserve canopy overhead at full arm's length and throw it down and directly away from your body as vigorously as possible.

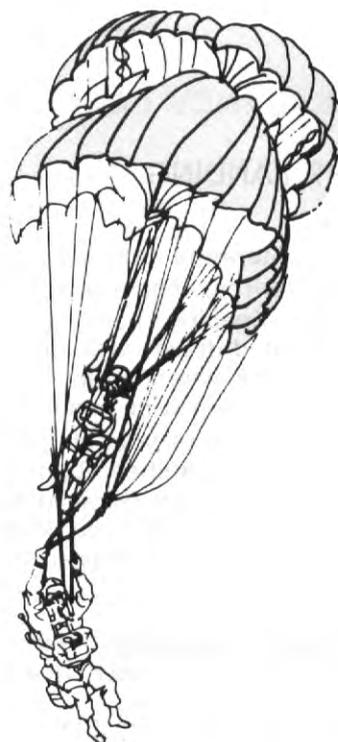




If the main and reserve parachutes entangle, attempt to inflate the reserve by pulling on the reserve suspension lines.



A midair entanglement involving high-performance canopies requires immediate action. First, check your altitude. If you are above 1800 feet AGL, attempt to free yourself from the other canopy. You may find, upon freeing yourself, that your main canopy has lost some or all of its lift, and you may feel as if you are back in free fall. Your canopy may require several hundred feet to reinflate. If it does not reinflate, initiate the appropriate partial malfunction procedures immediately. If you are unable to free yourself from the other canopy and are above 1800 feet, one jumper must cutaway. The jumper whose canopy is giving least support or is higher should execute cutaway, but the decision should be made and agreed upon by both jumpers immediately. If you are still entangled and below 1600 feet, both jumpers must make an immediate joint decision as to which one will hand deploy his reserve by the controlled method of reserve deployment.



If you have a minor deployment problem, do not activate your reserve parachute, but take appropriate corrective action.

SLEEVE AND/OR PILOT CHUTE THROUGH MODIFICATION, CONTROL LINE, OR TURN SLOT. If the sleeve and/or pilot chute should slip through a turn slot or loop around a control line, compensate for the resulting canopy turn by pulling on the opposite control knob or line until the turn is corrected and the canopy flies straight.

BROKEN CONTROL LINE OR MINOR CONTROL LINE ENTANGLEMENT. Should one of your control lines be broken or inoperable, you can steer with the opposite control line and by pulling the rear riser on the same side as the broken line. This will have, essentially, the same effect as pulling the control line, but will not be as positive.

FRONTAL CLOSURE. Occasionally during deployment the front of the canopy skirt will tuck under the rear. Although this should clear itself in a second or two, pull down on one or both control knobs and the front will open.

PILOT CHUTE HESITATION. If you are in a nearly perfect flat and stable body position, the air flow around you may be so uniform as to create a partial vacuum preventing the pilot chute's inflation. If you pull your ripcord and feel your pack open, but do not experience opening shock within 2 seconds, look over your shoulder to see if you have a pilot chute hesitation. Generally, just turning to look will break the vacuum and remedy the hesitation. Consider any other irregularity a partial malfunction and initiate appropriate emergency procedures immediately.

EMERGENCY LANDING PROCEDURES

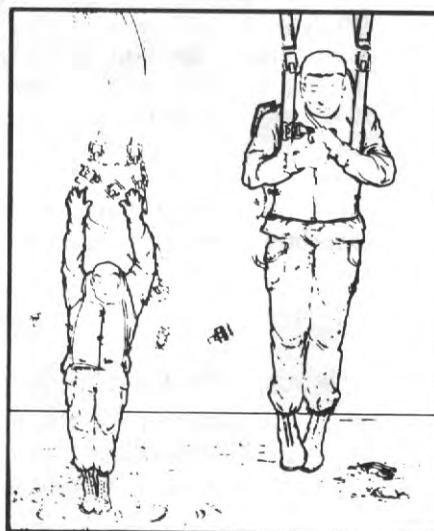
WIRE LANDING

If you determine that you will land in high tension wires, begin preparations for a wire landing. Keeping both feet together and toes pointed downward will allow you to slide through the wires. If you make contact with the wires, keep your hands high on the inside of the front risers, your chin on your chest, and your body well arched. Begin a rocking motion of your body by pushing forward on the front risers to help keep you from becoming entangled in the wire. Prepare to make a normal PLF.



WATER LANDING

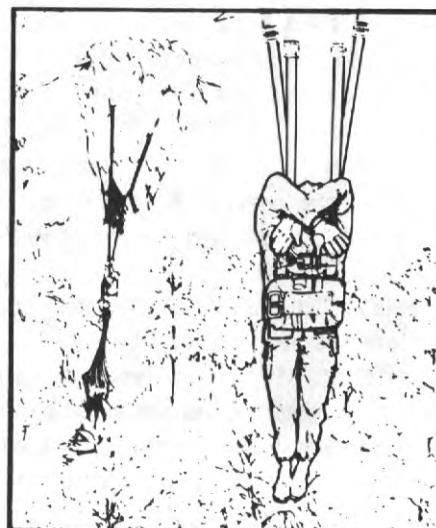
When you determine that you will land in a body of water, begin preparations for a water landing. The first step is to pull the saddle of your harness well under your buttocks and sit back in the harness. Discard your headgear and unfasten the snap connector and restraint strap on the left side of your reserve. Release all tiedowns but the upper ones on your weapons. If you are jumping with equipment, jettison all items secured to the harness which may hinder harness removal in the water. Grip the opposite main lift web with one hand and free your leg straps with the other. Upon contact with the water, throw both your arms upward, arch, and slide out of the harness. Keep in mind, however, that the water may be only a few inches deep, and be prepared to make a PLF if necessary.



When jumping with the B-5 type (Mae West) life preserver, you must take care that the preserver is inflated only after the harness is removed. The force of inflation, restricted by the harness, may crush a jumper's ribs. The gas release valves of the B-7 life preserver are activated in the air.

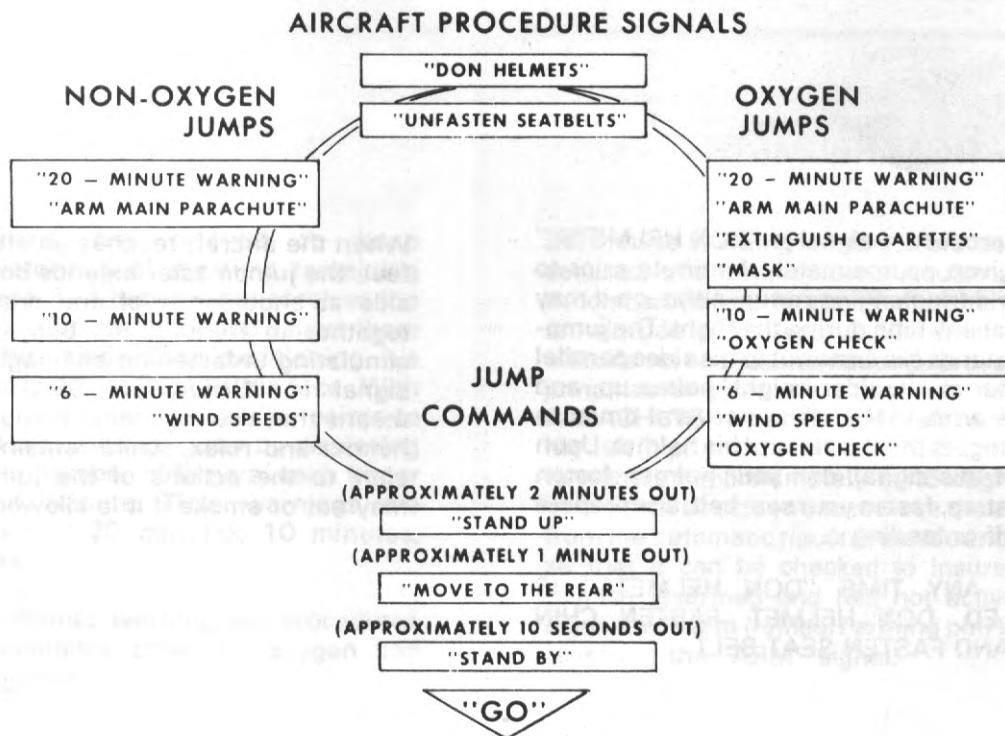
TREE LANDING

If you see that you may land in the trees, put your feet and knees together and point your toes downward. Pull your goggles down over your eyes and place your hands under the opposite armpits, palms facing outward and

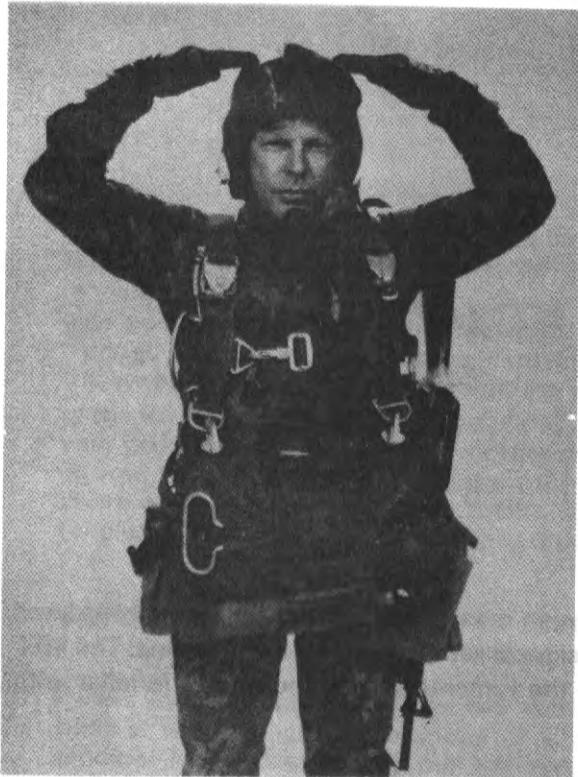


elbows high. Rest your head on your arms so you will be able to protect your face and eyes from branches. You will be able to see what is below you by looking under either elbow. Prepare to make a PLF if you should go through the trees or miss them. Do not lower the rucksack if you are jumping with equipment. The rucksack can hang in one tree and your canopy in another, leaving you dangling between the two.

Aircraft noise and the use of the helmet and oxygen mask require that all aircraft procedures and jump commands be given by arm and hand signals rather than by verbal means. The MFF parachutist, therefore, must constantly observe the jumpmaster, be thoroughly familiar with the signals, and respond immediately to each.



The signals used between takeoff and the 2-minute warning are classified as procedure signals.



"DON HELMETS"

The first procedure signal is "DON HELMETS," usually given approximately 1 minute prior to takeoff or during engine runup, although it may be given at any time during the flight. The jumpmaster extends his arms out to his sides parallel to the floor at shoulder height, palms up, and bends his arms at the elbows several times so that his fingers tap the sides of his helmet. Upon receipt of this signal, don your helmet, fasten the chin strap, fasten your seat belt, and prepare for takeoff or landing.

NOTE: ANY TIME "DON HELMETS" IS SIGNALLED, DON HELMET, FASTEN CHIN STRAP, AND FASTEN SEAT BELT.

When the aircraft reaches an altitude of 1,000 feet, the jumpmaster extends both arms to the side at shoulder level and brings his hands together in front of his body several times, simulating unfastening an imaginary belt. This signal is "UNFASTEN SEAT BELTS," and means that you may remove your seat belt and helmet and relax, while remaining constantly alert to the actions of the jumpmaster. You may eat or smoke if it is allowed on the flight.



Time warnings are relayed to keep parachutists informed of the time remaining prior to the drop. The jumpmaster receives the time warnings from the pilot and relays them by bending his elbow and positioning his forearm horizontally in front of his face. With the opposite index finger he taps or points to his wrist and indicates the time by displaying the appropriate number of fingers, each finger representing 1 minute. Time warnings are generally given at 20 minutes, 10 minutes, and 6 minutes.

From the 20-minute warning on, procedures and jump commands differ for oxygen and regular MFF jumps.



ARM MAIN PARACHUTE
 20-minute warning: Helmets are donned and secured, and any additional equipment which accompanies you is attached and checked. At an altitude of at least 2,500 feet above the altitude set on the automatic ripcord release, the jumpmaster gives the signal for "ARM MAIN PARACHUTE" by placing his left hand close to his left hip, and then extending the arm fully forward at approximately a 45-degree angle. This signal directs you to remove the arming pin from the automatic ripcord release and hold it up so that it can be checked to insure that the release is armed and has not activated. The signal to disarm (reinsert arming pin) is given by reversing the "ARM" signal.



10-minute warning: No action is required of you at this time.

6-minute warning: The red caution light is turned on, the door or ramp is opened, and the jumpmaster begins to orient himself with the ground and look for the drop zone.



WIND GUSTING

Wind speeds: The jumpmaster relays the ground wind speed by placing the heel of his hand under his chin and blowing across his palm and closed fingers. He then flashes his fingers in the same manner as for time warnings, each finger representing one knot.

To indicate gusting winds, the jumpmaster first indicates the lower wind velocity, then places an arm across his body and brings it down in a vigorous outward diagonal slash across the front of his body, and finally indicates the higher wind reading.

Normally, at the 2-minute warning the green light is turned on. The 2-minute warning alerts the jumpmaster that the aircraft is approximately 2 minutes from the release point and that it is time to give the first jump command.

OXYGEN JUMPS

Oxygen Check. The oxygen check signal is given after the 20-, 10-, and 6-minute warnings and at any other time the jumpmaster deems necessary. The jumpmaster extends his arm to the front, fingers clutched in a fist with the thumb extended upward to indicate an oxygen check. If you have no oxygen problems, return the signal to the jumpmaster. If you have an oxygen problem, extend your arm to your front with your palm down.

20-minute warning: Normally at this time the aircraft is pressurized to 10,000 feet cabin pressure. Don and secure your helmet and attach and check any additional equipment to accompany you. The signal "ARM MAIN PARACHUTES" will be given.

The jumpmaster will grind the knuckles of one hand into the palm of his other hand at about chin level to indicate that all cigarettes are to be extinguished prior to activation of the main oxygen source.

As all parachutes are checked to insure that no premature deployments have occurred, the assistant jumpmaster passes out an oxygen hose to each jumper and indicates the individual's regulator. Hook your hose to the oxygen connector and wait for the next signal. The jumpmaster places his thumb on the right side of his face and rotates his palm and fingers across his nose and mouth as in masking. This is the signal to mask. Put on your oxygen mask and make sure that the oxygen hose is not kinked and that the mask straps are not twisted. The jumpmaster will call for an oxygen check.

10-minute warning: The aircraft should be completely depressurized. No action other than an oxygen check is required of you.

6-minute warning: The red caution light is turned on, the aircraft door or ramp is opened, ground winds are relayed, and an oxygen check is made.

Jump commands begin at the 2-minute warning and continue through exit of the aircraft in the same manner as for non-oxygen jumps.

EXTINGUISH SMOKES



OXYGEN CHECK



...and UP. The firefighter should be ...
...and UP. The firefighter should be ...



"STAND UP." The jumpmaster extends his arm, elbow locked and palm up, and rotates it up between shoulder and head level to signal "STAND UP."

"STAND UP." Stand up, check your equipment and the bottom pin of the parachutist in front of you, pull down your goggles, and snug down your reserve. Two additional actions are required of you at this time. First, place your right hand on the "ON-OFF" control of the dual oxygen cylinder, and, second, grasp the oxygen hose next to the CRU 60/P.

"MOVE TO THE REAR." At approximately 1 minute prior to reaching the exit point, the jumpmaster extends his arm straight out toward the jumpers, elbow locked at shoulder level, and waves his forearm alongside his head toward the rear. This is the second jump command, "MOVE TO THE REAR." All parachutists exiting will move to within 1 meter of the edge of the jump door or ramp.

"MOVE TO THE REAR." Activate your bailout bottle and when you feel the surge of oxygen from the bottle, disconnect from the console, loop your hose around your regulator, and move to within 1 meter of the edge of the jump door or ramp, whichever is being used.



"STAND BY." Approximately 10 seconds prior to exit, the jumpmaster forms a fist with either hand, thumb extended, and brings the arm, elbow locked, upward from beside his leg to a horizontal position parallel to the floor to signal the command, "STAND BY." To signify that you are ready, return this signal to the jumpmaster. All parachutists on "STAND BY" will move to the edge of the jump door or ramp and keep their eyes on the jumpmaster if he is spotting, or on the jump lights if the exit is to be electronically computed by the Adverse Weather Aerial Delivery System (AWADS). If the exit is electronically computed, the green jump light will be turned on at the exact point of exit.

"GO." The fourth jump command is "GO," given by the jumpmaster and/or the green light. Providing the green light is on, the jumpmaster signals the command by extending his arm at shoulder level, hand alongside his head, and thrusting vigorously toward the exit. Exit the aircraft as rapidly as possible.

ABORTS

The jumpmaster has the responsibility and authority to abort any pass when an unsafe condition exists inside or outside the aircraft or on the drop zone. Should it become necessary to abort a pass after the parachutists are near the exit, the jumpmaster will slowly turn away from the exit, face the front of the aircraft, and walk slowly toward the front, shaking his head from side to side. When an abort signal is given, return to your seat and sit down. Reconnect to the oxygen console and deactivate your bailout bottle.

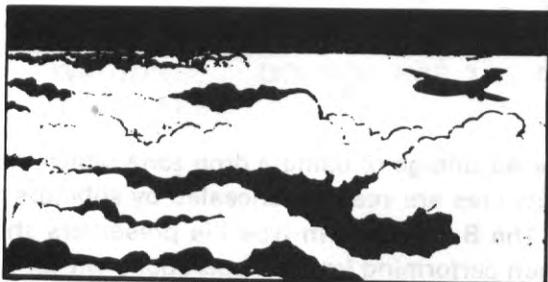
SECTION 3

There are two accepted methods of recovering the MC-3 parachute assembly. The preferred method requires the use of an aviator's kit bag, but the alternate method may be used when a kit bag is not available. In either case, you should attach your ripcord handle to the chest strap of your harness before you remove the harness; this prevents the loss of the ripcord handle. Remove the harness and, before allowing it to touch the ground, reinsert the arming pin into the FF-2 automatic ripcord release to preclude misplacement of the pin and the introduction of dirt or debris into the release.

To recover the MC-3 parachute assembly, stretch the entire assembly, from the pilot chute to and including the pack and harness, out on the ground. Move to the pilot chute end of the canopy sleeve and pull the sleeve retainer line through the sleeve until the bridle loop is even with the top of the sleeve. Fasten the bridle loop to a handy object or have someone hold it while you pull the canopy sleeve down over the canopy. Taking care not to damage the canopy sleeve by trying to push too much material into the opening, pull the sleeve down to the point where no canopy material is exposed. Move back to the bridle and drape the pilot chute over your shoulder. Place your thumb through the bridle loop and "S" fold the canopy and suspension lines until you arrive at the risers. Place the folded canopy and suspension lines into the kit bag, and place the pilot chute on the ground next to the bag. Remove the FF-2 automatic ripcord release from the harness if you are required to do so. Place the packtray and harness assembly into the kit bag on top of the canopy and suspension lines with the comfort pad facing up to protect the FF-2. Place the pilot parachute into the kit bag and snap the fasteners located on the kit bag. **DO NOT USE THE SLIDE FASTENER (ZIPPER), SINCE THE TEETH CAN DAMAGE ANY PROTRUDING FABRIC.**

To recover the MC-3 parachute by the alternate method, follow the same steps as for the preferred method through drawing the sleeve over the canopy. Then, drape the pilot parachute and the sleeved canopy over your shoulders, and coil the suspension lines into one of your hands, making an approximately 2-foot coil. Fold the risers into the open packtray and place the coiled suspension lines on top of them. "S" fold the sleeved canopy into the packtray, making each "S" fold approximately the same length as the packtray, and allow the pilot parachute to extend beyond the top of the tray. Close the side closing flaps over the entire contents and secure the flaps in place with the pack opening bands.

Do not put your oxygen mask on the ground during recovery. Moisture caused by breathing and temperature change during descent will cause sand and debris to stick to the mask, making it harder to clean.



CLOUDS aid free-fall infiltrations by reducing ground observers' capabilities to detect infiltrating personnel. If you enter clouds during free fall, stop all maneuvering immediately and use stable fall techniques. Continue assembly in free fall after you have cleared the base of the clouds. If you remain in clouds for the entire free fall, activate your parachute at the designated altitude, face the canopy downwind, and fly at half-brakes. Follow the same procedures if you should enter clouds after deployment. Execute no other canopy maneuvers until you have cleared the base of the clouds, when normal grouping techniques may be initiated or continued.



NIGHT OPERATIONS by an infiltrating unit reduce the possibility of detection. For night operations, the free-fall kit will contain a lighting device which will be either a steady light or a strobe light. These lights should be attached to backpacks so that they can be seen during free fall and should be turned off immediately after landing. Lights must be visible for 3 nautical miles on jumps in airspace strictly under FAA control, but are not required on operations conducted in restricted airspace such as that on most military installations. All efforts to group in free fall and under canopy may be made on night operations, but more vigilance is required of individual jumpers. If a lighting device should totally fail on a night free-fall operation, you have two alternatives. First, see if you can positively observe another parachutist. If you can, activate your main parachute when you observe his opening. If you can observe no other parachutist to use for reference, exercise your second alternative: When you reach opening altitude, activate your main parachute immediately and concentrate on trying to land on the desired impact point.



INTENTIONAL WATER JUMPING has the advantage of using a drop zone which will leave no impact impressions. Moreover, the parachutes are readily concealed by submersion, and the chance of discovery becomes remote. The B-7 underarm-type life preservers should be worn during intentional water jumps, or when performing free-fall operations within 1 mile of a body of water. Activate your life preserver with the compressed gas cylinders immediately after checking your canopy upon deployment. If the gas cylinder fails to inflate the life preserver, you may inflate it through the oral inflation valve. Face your canopy into the wind prior to impact with the water surface, and prepare to do a normal PLF if you should land on a submerged object. Upon contact with the water, activate both canopy releases to free the canopy. The harness and equipment can be removed after boarding a watercraft or upon reaching shore.

Any or all of these special free-fall operations may be encountered on a particular jump.

WARNING: OXYGEN WILL ALWAYS BE USED WHEN ALTITUDES ABOVE 10,000 FEET ARE TO BE MAINTAINED FOR MORE THAN 30 MINUTES.

When you handle oxygen equipment, certain techniques and procedures must be followed to avoid the danger of explosion and to prevent damage to the equipment.

WARNING

DO NOT

SMOKE WHEN OXYGEN IS BEING UTILIZED.

DO NOT

DROP OR BANG THE OXYGEN CYLINDERS

DO NOT

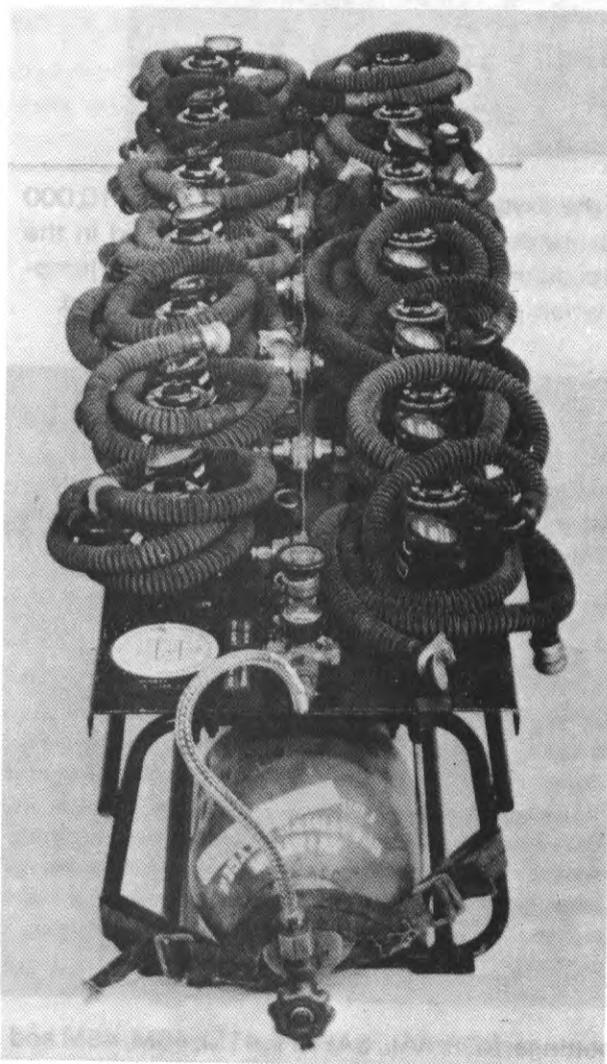
USE OR ALLOW THE PRESENCE OF OIL OR GREASE AROUND OXYGEN UNDER PRESSURE.

DO NOT

TRANSPORT OXYGEN CYLINDERS WITHOUT VALVE CAP

THE OXYGEN CONSOLE. The model 2900 oxygen console is a portable console with 14 A-14 pressure demand regulators and hoses to provide oxygen to parachutists en route to the drop zone. The console is centrally positioned in the aircraft, accessible to all parachutists, and is fed by a large high-pressure oxygen cylinder. Mission and oxygen requirements, however, may demand the addition of more cylinders.

WARNING: DO NOT USE THE PRESSURE DEMAND OXYGEN SYSTEM ABOVE 43,500 FEET.

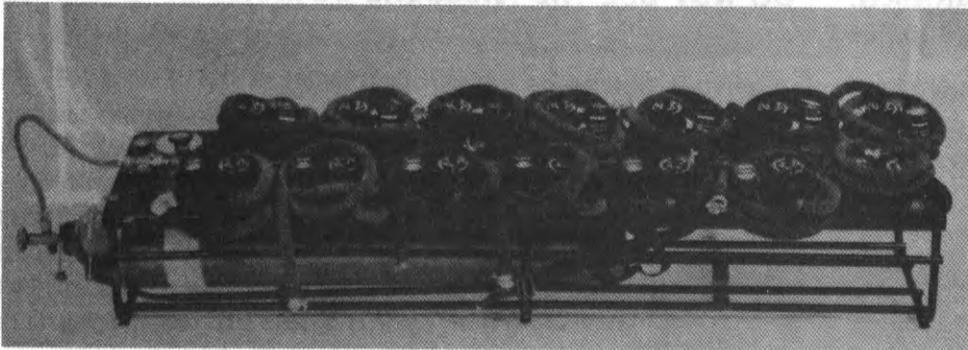


WARNING: THE PORTABLE OXYGEN CONSOLE AND PERSONNEL OXYGEN CYLINDERS WILL BE SERVICED WITH AVIATORS' BREATHING OXYGEN, TYPE 1, MIL-O-27210 ONLY.

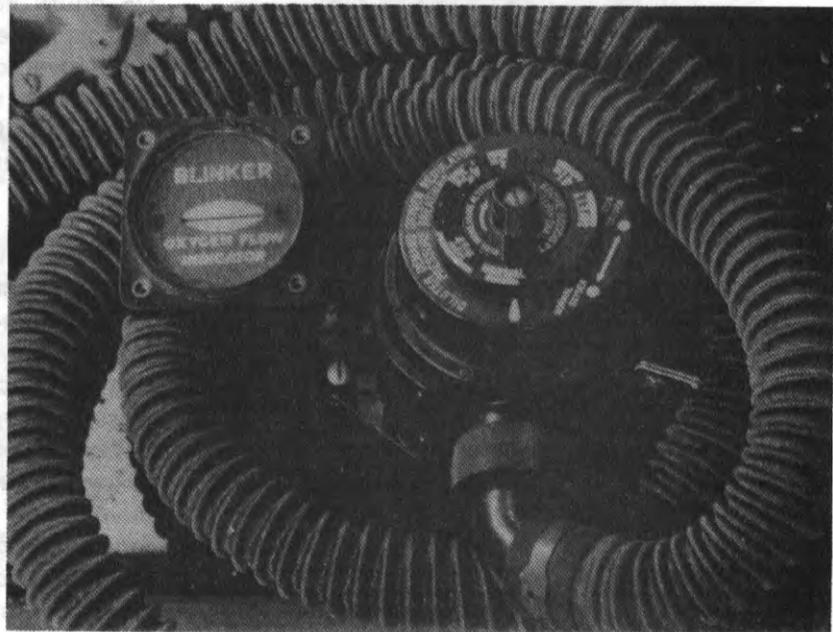
Each oxygen cylinder will supply adequate oxygen for 14 parachutists for approximately 1½ hours at 30,000 feet altitude. Since the console is the most sensitive piece of equipment in the inventory, nothing should be put on top of it. The hoses should be coiled around the regulators or curled into special pockets which may be attached to the sides of the console.

Since the maximum pressure which can be used with the M2900 oxygen console is 1800 psi, the high-pressure cylinder used for filling bailout bottles can be utilized once the pressure in it is reduced to 1800 psi. Replace the high pressure oxygen cylinder in the M2900 oxygen console when the pressure reading is 800 psi or lower. Turn off the outside source shutoff valve which controls the oxygen supply to the console and disconnect the flexible hose assembly from the cylinder. Loosen the two straps around the cylinder and slide it straight out of the front of the console.

Slide the new cylinder into the console in the same manner, valve opening up for easy fitting of the flexible hose assembly. Insure that the cylinder is well seated in the strap. Place the second strap over the valve assembly and secure it to the console to keep the cylinder from moving back and forth and causing the metal flexible hose assembly to work loose. Reconnect the flexible hose assembly to the cylinder and open the outside source shutoff valve. (There is, additionally, a line shutoff valve which is used to fill walkaround bottles from the main oxygen supply.)



The Model 2900 oxygen console is activated by the oxygen safety NCO at an altitude of 10,000 feet. All automix levers on the individual pressure demand regulators will be placed in the *normal oxygen* position. The 100 percent oxygen position is used for such personnel as the jumpmaster, assistants, or oxygen safety NCO's, or when an altitude of 29,000 feet is reached.



A14 REGULATOR

On the face of the A-14 regulator, there are six settings: **NORMAL**, **SAFETY**, **41M**, **43M**, **45M** and **45M ABOVE**. You will normally use only the first three of these positions. The **NORMAL** position is generally used for altitudes up to 20,000 feet, and the **41M** positions for most of higher altitudes with which you will be concerned. The **SAFETY** position is for emergency conditions.

The oxygen flow indicator (blinker) is positioned on the console beside each individual regulator so that each parachutist can monitor it. It indicates to each parachutist that he is receiving oxygen and his rate of breathing. It blinks only on inhalation.

Before each high-altitude flight, make the following checks on the portable oxygen console:

Oxygen supply pressure gauge check. Check the oxygen supply pressure gauge for indication of 1800 psi.

Regulator blowby check. Position diluter level to *normal oxygen* position. Blow gently into the open end of the mask-to-regulator tubing. There should be continued resistance to gentle blowing. Repeat the procedure with the diluter lever set at *100% oxygen* position.

Oxygen flow indicator check. Position the diluter lever to *normal oxygen* position. Inhale gently. The flow indicator should blink when oxygen flows through the system upon inhalation. Repeat the procedure with the diluter level set at *100% oxygen*.

Diluter lever check. Before takeoff, set the diluter lever to the *normal oxygen* position.

Hose purging. The oxygen hoses must be purged prior to use to remove any foreign material in them. Set the regulator control to the 43M setting, point the regulator hose away from your face, and release two or three bursts of oxygen through the hose. Connect the mask-to-regulator connector to the regulator hose and repeat the procedure.

INDIVIDUAL OXYGEN STATIONS. Some aircraft are equipped with individual oxygen stations for each parachutist. When these stations are used, the same checks as those conducted on the portable oxygen console are conducted and the procedures are the same.

DUTIES OF THE OXYGEN SAFETY MAN. An oxygen safety man is required in each aircraft when oxygen is being used during free-fall operations. He must be a qualified free-fall jumpmaster who has had physiological training.



The oxygen safety man:

Checks all oxygen equipment prior to enplaning.

Distributes oxygen hoses on one side of the aircraft. The jumpmaster or his designated representative distributes the hoses on the opposite side of the aircraft.

Insures that all parachutists are properly attached to the oxygen supply on the jumpmaster's command.

Insures that all parachutists are receiving an adequate supply of oxygen.

Makes periodic checks of all oxygen equipment during flight.

Continually checks parachutists for symptoms of hypoxia.

On order from the jumpmaster, assists the parachutists in switching from individual oxygen outlets to personnel oxygen cylinders, and insures that each cylinder has been activated.

Stays with any parachutist suffering from oxygen sickness or one who has been unable to jump, lands with the aircraft, and assists the parachutist as required.

Jump training should commence upon completion of the ground training phase. There is no established or prescribed minimum or maximum number of jumps, but after approximately 20 free-fall jumps, including at least one oxygen jump, one jump with equipment, and one jump during hours of darkness, the average student can successfully accomplish a free-fall mission as a jumping team member.

INDIVIDUAL JUMPS. After nine jumps, the average student should be able to stabilize and maintain a heading on a ground reference point or direction. Instructor personnel should observe the students in the air during the initial jumps and critique them on an individual basis. Upon completion of the individual's initial jumps and as a prerequisite to continued training, the student must pass a graded exercise: satisfactorily exit the aircraft, attain and maintain a designated heading, execute 360-degree turns to the left and right, fall stable, and execute a stable pull at the prescribed altitude.

GROUPING. The remaining jumps should be made from an altitude of 17,500 feet with grouping exercises started immediately and continued throughout the duration of the course. Oxygen equipment, individual weapons, and equipment are added as the individual participates in the grouping exercises. Landing within 100 meters of the group leader during 70 percent of all grouping exercises is mandatory for satisfactory completion of the free-fall course. Upon completion of jump training, an individual is capable of executing high-altitude jumps using oxygen equipment, with individual weapon and equipment, day or night, and landing close to a desired impact point.