STANDARD SAFETY OPERATING PROCEDURES

HELICOPTER ARMAMENT SUBSYSTEMS M-21 AND M156/159C

1. PURPOSE. To establish uniform safety and preflight procedures for Helicopter armament subsystems on the M-21 and M156/159C when applicable. (* Denotes procedures for M156/159C)

2. SCOPE. This SOP applies to all personnel involved in the loading, maintenance, and operation of the helicopter armament subsystem the M-21. It covers inspection procedures (Annex A), handling of rockets small arms ammunition, loading of the weapons sub systems, correct arming and dearming procedures (Annex B), and care and cleaning of the weapons system (Annex C).

3. INSPECTION PROCEDURES. The proper inspection and re-inspection of the helicopter armament sub systems by all personnel concerned will greatly enhance the operational capabilities of the unit. For detailed inspection procedures see Annex B-A.

4. Handling of the 2.75 inch FFAR Rocket and 7.62 Linked Ammunition.

* a. 2.75 Inch FFAR Rocket:

(1) General: The 2.75 inch rocket is a two piece assembly (rocket motor and explosive warhead) designed to be fired electrically from the helicopter. The 2.75 inch FFAR warhead is safe to handle because it is armed by a gravity device which requires from seven (7) to nine (9) G's to actuate. To protect the 2.75 inch FFAR rocket motor's firing circuit from accidental discharge by static electricity, a grounding device is installed which fits over the fins and electrical contacts or has two safety wires that must be present when unpacking the rocket motor, grounding and protecting them.

(2) Preparation for uses:

(a) Unpack rocket motor carefully to prevent damage to motor body, fins, and electrical contacts.

(b) Insure rocket motor grounding device is installed at all times, especially important around sources of static electricity (aircraft and vehicles).

(c) Do not assemble motor and warhead except for immediate use.

(d) Ground the helicopter before loading, making sure the battery is disconnected.

(c) Store in a cool dry place. Prevent direct contact with the sun rays by use of a canvas covering.

(f) Store rockets on dunnage to prevent contact with ground.

b. 7.62mm Linked and Unlinked Ammunition:

(1) General: Due to the construction of small arm ammunition no special precautions are required. Normal safety measures should be followed.

(2) Preparation for use:

(a) Exercise care when handling 7.62mm linked ammunition to prevent damage to links and cart ridges. A bent cartridge will not chamber properly in the weapons.

(b) Protect from the weather element to prevent corrosion and rust.

(c) Check length of rounds installed in ammunition belts to insure there are no long or short rounds (cartridges improperly installed in links).

(d) Connect ammunition belts carefully to prevent long rounds.

(e) Store in a cool, dry place on dunnage.

5. LOADING PROCEDURES.

a. Armament Subsystem, Helicopter, 7.62mm Machine gun - 2.75 inch Rocket Launcher XM 158: Twin, High Rate, M-21: This subsystem consists of two (2) 7.62mm automatic guns, M134, and two (2) 2.75 inch rocket launchers, XM158, with seven (7) launcher tubes each. The M156/1590 consists of two (2) M159C launchers with nineteen (19) launcher tubes each. The following procedures will be followed:

* (1) Preparation for loading or unloading ammunition:

(a) Prior to loading the rocket launchers perform the following:

1 Stray voltage test.

2 Connect ground cable to helicopter.

3 Set rocket stepping switch in the reset position on each launcher rack and reset the intervolometer.

4 Pull armament subsystem circuit breakers on overhead panel. Specific circuit breakers are: XM-3 Rocket Power and Jettison, Pilot Sight Power, 7.62 Gun Power, 7.62 Gun Control, and Rocket Control.

(2) Loading the automatic guns.

(a) Normal load consists of 3,000 rounds ball ammunition (4 and 1) per automatic gun. The ammunition is loaded into four (4) ammunition boxes, two (2) per automatic gun.

(b) The first and second row of ammunition boxes feed the left automatic gun. They must be loaded from left to right, cartridge forward, the gun taking ammunition from the extreme right box, second row first. The ammunition is loaded in order to arrive at the Delinking Feeder MAU-56/A with link single loop end first, open side of the link down.

(c) The third and fourth row of ammunition b oxes feed the right automatic gun. They must be loaded from right to left, cartridge forward, the gun taking ammunition from the extreme left box, third row first. The ammunition is loaded in order to arrive at the Delinking Feeder MAU - 56/A with link single loop end first, open side of the link down.

(d) Prepare crossover feed assembly for loading by:

1. Opening access cover

2. Disengaging clutch release detent

(e) After loading ammunition boxes:

1. Mate free ends of the two cartridge belts.

2. Pull belt back into secondary row until snug around lower roller.

3. Close and fasten access roller door.

4. Push down on clutch release catch until clutch release detent engages.

(f) Remove the safing sector and housing sector b efore loading the automatic gun.

* (3) Loading Rocket Launchers M-21 and M56 /159C.

(a) Inspect rockets for proper assembly and load only those rockets which are properly assembled.

(b) (M-21) Swing igniter arm assembly away from the aft end of the launcher tube.

(c) (M-21) Remove rocket fin retainer or safety wires and insert the rocket into the aft end of the launcher.

(M156) Remove rocket safety wire and insert the rocket into the forward end of the launcher. Arrow on front of launcher must be between two (2) rocket fins.

(d) (M-21) Slide rocket forward until detent engages the rocket.

(M156) Slide rocket aft until detent engages the rocket.

(e) (M-21) Position igniter arm assembly onto aft end of the rocket motor making sure contact is made.

(M156) Insure launcher firing contact is making positive contact with the rocket.

* (4) Unloading Rocket Launchers:

(a) (M-21) Swing igniter arm assembly out and away from aft end of the rocket motor.

(b) Use a screw driver to release the detent holding the rocket in the tube and push the rocket forward until it can be grasped and pull out the front of the tube.

(c) Install fin retainer or safety wires on the rocket.

(5) Unloading the Automatic Guns (M134):

(a) The crew chief and door gunners will exit the helicopter using caution not to pass in front of the guns. They will:

(1) Be sure weapon is pointed in a safe direction.

(2) Rotate barrels clockwise (opposite operating direction) one barrel position.

(3) Remove safing sector and housing cover.

(4) Rotate barrels counter clockwise (operating direction) two (2) complete turns.

NOTE: The gun cannot fire with the safing sector and housing unit removed.

(b) Remove flexible ammunition chute from the delinking feeder.

(c) Manually rotate barrel cluster in firing direction and inspect to see that remaining cartridges clear from the delinking feeder.

6. ARMING AND DISARMING PROCEDURES. Since a malfunction of the weapons system firing circuit could accidently fire rockets and/or machine guns, the weapons system will be armed and disarmed only in specified areas where there be no danger to ground personnel. For detailed arming and disarming procedures see ANNEX

7. CARE AND CLEANING. The proper care, cleaning and inspection of the helicopter armament subsystem by all personnel concerned will greatly enhance the operational capabilities of the unit. The weapons system will be cleaned and maintained in accordance with the appropriate technical manual as outlined in ANNEX

ANNEX 8-A

PREFLIGHT PROCEDURES

1. Automatic Gun - M134

a. Secured with all electrical and hydraulic cables connected.

b. Barrels - Clean of oil, dirt and foreign matter.

c. Bolt Assemblies - Clean with proper lubrication (MIL-T).

d. Safing Sector and housing cover secure.

e. Gun and delinker feeder timing pins depressed for timing check.

f. Ammunition boxes secure and properly loaded, ammunition chutes properly secured to boxes and guns and chute support brackets secure.

* 2. Rocket Launchers - XL158 and M159C

a. Rocket tubes - Check for corrosion , moisture, damage, and proper loading.

b. Rack and support assembly - Properly attached with sway braces firmly in place.

c. Electrical cables - Check for damage and properly secured.

d. Rocket firing module on rack set in "Reset" position.

e. Check manual release cable (some slack must be present).

WARNING: DO NOT pull cables or launcher pods may release causing damage.

3. Interior Cockpit:

a. (M-21) Gun selector switch - ALL

b. OFF - SAFE - ARMED switch - OFF

* c. Armament Selector Panel:

(1) 7.62 position

(2) Rocket pair selector switch to 0 position.

(3) Jettison switch guard safetied with copper wire.

d. Sighting Station (M-21):

(1) Check for damage to sight and grip.

(2) Optical glasses clean.

(3) Check two filament incandescent lamp.

* e. Infinity Sight XM 60 (M-21) (M59):

(1) Check for proper installation.

(2) Check for binding from stowed position to operating position.

(3) Turn on light and check rheostat through entire range. (Battery ON and pilot sight circuit breaker IN).

(4) Check dual reticle illumination.

(5) Turn sight dial through entire range checking for binding.

* f. Insure armament subsystem circuit breakers are pulled on overhead panel and battery off.

ANNEX 8-B

HELICOPTER ARMAMENT SYSTEMS ARMING AND DISARMING PROCEDURES

1. GENERAL: Since malfunctions of the M 21 weapons systems firing circuit could accidently fire rockets and/or the automatic guns. The weapons system will be armed and disarmed only in specified area where there will be no danger to ground personnel in the event of a malfunction. The following procedures will be rigidly adhered to:

2. ARMING:

* a. Proceed to a safe arming area with all armament switches OFF and weapons system circuit breakers OUT.

b. In arming area the crew chief and door gunner will dismount. Standing clear they will insure the ignit or arm assembly is in contact with the rocket motor.

c. Crew chief and door gunner will feed the linked cartridges through the ammunition chutes to the delinking feeder, and replace the safing sector. Then enter the helicopter exercising caution not to pass in front of the gun.

* d. Pilot-Gunner will push in armament system circuit breakers.

e. Pilot-Gunner will turn armament master switch to the SAFE position, and after 10 minute warm up to the ARMED position. (No warm up period for M159)

f. Pilot-Gunner will depress the actuator bar (Dead man's switch) on the sighting station and check operation of lateral and vertical gun traverse.

* g. System is ready for use. Return armament master switch to the SAFE position until ready to fire then return to ARMED position.

3. DISARMING:

a. Proceed to a safe disarming area.

b. Place rocket pair selector switch to O.

c. Pilot-Gunner will place armament master switch to the OFF position.

d. Pilot-Gunner will pull all armament system circuit breaker OUT.

e. The crew chief and door gunner will exit the helicopter

using caution not to pass in front of the guns. Crew chief and gunner will use the following disarming procedures:

(1) Be sure weapon is pointed in safe direction.

(2) Rotate barrels clockwise (opposite operating direction) one barrel position.

(3) Remove safing sector and housing cover.

(4) Rotate barrels counter clock wise (operating direction) 2 complete turns.

ANNEX C-C

CARE AND CLEANING ARMAMENT SUBSYSTEM M21 and M156/159C

* 1. GENERAL. The proper care, cleaning, inspection, and reinspection of the helicopter armament subsystem by all personnel concerned will greatly enhance the operational capability of the unit. The weapons system will be maintained, serviced, and inspected in accordance with the procedures outlined in T.M. 9-1090-202-12.

* 2. Components of the Subsystem. Visually inspect for mutilation, damage, or missing parts. Check the security of attachments and for clean components.

3. AUTOMATIC GUN M134:

a. Barrels - Clean all surface, wipe dry, and lightly oil bore and chamber. Remove oil from bore and chamber prior to firing.

b. Gun Mechanisms - Clean external surfaces. Disassemble daily after firing, when dirty or after 20,000 rounds and clean bolt assemblies, removable tracks, trigger cams, and rotor assembly.

NOTE: DO NOT IMMERSE ROLLER BEARINGS, SOLENOIDS, CANNON PLUGS, RECOIL ADAPTERS, AND DRIVE MOTOR IN SOLVENT.

c. Delinking feeder and electric drive assembly should be cleaned after 20,000 rounds (approximate).

* 4. Rocket Launcher M158 and M159. Clean tubes with warm, soapy water and bore brush and firing contacts with emery cloth after firing or daily. Wipe dry after cleaning.

5. Hydraulic filter element: Inspect the filter element every 100 hours of helicopter operation. Clean or replace if defective.

6. When helicopter is under going a scheduled periodic inspection or is in the field maintenance shop, the guns will be turned into the armament section for a thorough inspection. The pylons and launcher racks will also be removed for inspection and repairs as necessary. Hydraulic coupling covers will be installed when pylons are removed.

CAUTION : HYDRAULIC LINES MUST BE SHUT DOWN FOR REMOVAL OF PYLON.

7. Before operation all electrical connections must be inspected to ascertain they are clean, free of moisture, and tight.

AMMUNITION AND RANGE SAFETY PROCEDURES

1, Ammunition handling

* a. 2.75 Inch FFAR Rocket

(1) General. The 2.75 inch rocket is a two (2) piece assembly (rocket motor and explosive warhead) designed to be fired electrically from the helicopter. The 2.75 inch FFAR warhead is safe to handle because it is armed by a gravity device which requires seven (7) to nine (9) G's to actuate. To protect the 2.75 inch FFAR rocket motor's firing circuit from accidental discharge by static electricity, a grounding device is installed which fits over the fins and electrical contacts or has two (2) safety wires that must be present when unpacking the rocket motor, grounding and protecting them.

(2) Preparation for use:

(a) Unpack rocket motor carefully to prevent damage to motor body, fins, and electrical contacts.

(b) Insure rocket motor grounding device is installed at all times, especially important around sources of static electricity (Aircraft and vehicles).

(c) Assemble rocket motor and warhead making sure the warhead is tight in the rocket motor.

(d) Rocket will be placed on a canvas (tarp and/or dunnage) with warhead is pointed down range. Rockets may be placed 2 high only.

(e) Canvas will be pulled over rockets to prevent direct contact with suns rays.

b. 7.62mm Linked Ammunition.

(1) General. Due to the construction of small arm ammunition no special precautions are required. Normal safety measures will be followed.

(2) Preparation for use:

(a) When opening the ammunition boxes, the ammunition will be linked together in 1,000 round belts. Connect ammunition belts carefully to prevent long rounds

(b) 1,000 round belts will be placed on a canvas or dunnage (tarp) with rounds pointing down range. Can vas will be pulled over the ammunition to prevent corrosion, dirt, and rust.

(c) Exercise care when handling 7.62mm linked ammunition to prevent damage to links and cartridges. A bent cartridge will not chamber properly in the weapon.

(d) Check length of rounds installed in ammunition belts to insure there are no long or short rounds (Cartridges improperly installed in links.

c. Smoke Grenades.

(1) Grenades must not be considered safe until insuring the pull ring is completely through the grenade handle and is bent on the opposite side of the pull ring.

(2) When using grenades always insure it is thrown clear of the helicopter.

(3) Grenades must not be lifted or carried by pull ring.

(4) Should a smoke grenade become "Hot" in the helicopter it should be kicked or thrown out as quickly as possible. Caution should be taken when handling these few seconds because burn can occur.

(5) A grenade can be made safe if the lever hasn't been released and has already fired, by replacing the safety ring, however, it is a good practice to go ahead and throw the grenade out of the helicopter.

(6) Do not subject grenades to shock or heat.

d. No Smoking near ammunition area.

e. No running in the ammunition area.

2. Loading Procedures.

a. Armament, Subsystem, Helicopter, 7.62mm Machine Gun - 2.75 inch Rocket Launcher XM 159: Twin, High Rate, M-21: This subsystem consist of two (2) 7.62mm automatic guns, M134, and two (2) 2.75 inch rocket launchers, XM 158, with seven (7) launcher tubs each. The following procedures will be followed: (* Denotes procedures for M156/159C)

* (1) Procedures for loading:

(a) Prior to loading the rocket launchers make a stray voltage test prior to the first flight of the day.

(b) Connect ground clamp to helicopter. (Static Ground Cable)

(c) Disconnect battery.

(d) Move OFF-SAFE-ARMED switch to OFF.

(e) Weapons selector switch to 7.62.

(f) Pair selector switch to 0.

(g) Pull armament subsystem circuit breakers on overhead panel. Specific circuit breakers are: * Rocket power, * jettision, * Pilot sight power, Gun power, and 7.62 Gun Control.

(h) Set rocket stepping switches in the Reset position both on the rocket launcher and the intervolometer reset.

(2) Loading Rockets Launchers (* Denots prodedures for M156/ 1590).

(a) * Inspect rockets for proper assembly.

(b) Swing igniter arm assembly away from the aft end of the launcher tube.

(c) * Remove rocket fin retainer or safety wires and insert the rocket into the aft * forward end of the launcher.

(d) * Slide rocket forward (* aft) until detent engages the rocket. Do not stand directly in front of or behind the launcher when loading rockets.

(e) Position igniter arm assembly on aft end of the rocket motor making sure contact is made.

(f) * Insure aft end of rocket contacts launcher contact.

(3) Unloading Rocket Launcher:

(a) Swing igniter arm assembly away from aft end of rocket motor.

(b) * Use an unloading tool or screw driver to release the detent holding the rocket in the tube and push the rocket forward unt il it can be grasped and pulled out the front of the tube.

(c) * Inst all fin retainer or safety wire on the rocket.

(4) Loading the automatic guns - M134

(a) Normal load consists of 3,000 rounds ball ammunition (4 and 1) per automatic gun. The ammunition is loaded into (4) ammunition boxes, two (2) per automatic gun.

(b) The first and second row of ammunition boxes feed the left automatic gun. They must be loaded from left to right, cartridge forward, the gun taking ammunition from the extreme right box, second row first. The ammunition is loaded in order to arrive at the Delinking Feeder with link single loop end first, open side of the link down.

(c) The third and fourth row of ammunition boxes feed the right automatic gun. They must be loaded from right to left, cart ridge forward, the gun taking ammunition from the extreme left box, third row first. The ammunition is loaded in order to arrive at the Delinking Feeder with link signle loop end first, open side of the link down.

(d) Prepare crossover feed assembly for loading by:

1. Open access cover.

2. Disengage clutch release detent.

(e) After loading ammunition boxes:

1. Mate free ends of the two cartridge belts.

2. Pull belt back into secondary row until snug around lower roller.

3. Close and fasten roller.

4. Push down on clutch release catch until clutch release detent engages.

(f) Remove the safing sector and housing sector before loading the automatic gun.

(5) Unloading the Automatic guns:

(a) The crew chief and door gunners will exit the helicopter using caution not to pass in front of the guns. They will:

(1) Be sure weapon is pointed in a safe direction.

(2) Rotate barrels clockwise (opposite operating direction) one barrel position.

(3) Remove safing sector and housing cover.

(4) Rotate barrels counter clockwise (Operating direction) 2 complete turns.

NOTE: The gun cannot fire with t he safing sector and housing unit removed.

(b) Remove flexible ammunition chut. from the delinking feeder and manually remove one cartridge from the belt.

(c) Manually rotate barrel cluster in firing direction and inspect to see that remaining cartridges clear from the delinking feeder and gun.

3. Range Safety Orientation and Procedures To Include Duties Of Instructor Pilot (IP). (Map will be used for conducting Ranges Orientation and Procedures)

a. The following sequence will be adhered to:

(1) 7.62mm ammunition boxes inside helicopter will be loaded first with a total of 6,000 rounds. Safing sector and housing unit will be removed. Automatic guns will not be loaded at this time.

* (2) 1,000 rounds, 7.62mm will be loaded for the crew chief and 1,000 rounds for the door gunner. Two (2) smoke grenade boxes will be used for this ammunition. The M-60 machine guns will have the barrels removed, covers open, and safety on.

(3) 2.75 inch rockets loaded according to Para 2(1). Safety fins or safety wires will be removed prior to loading rocket and locking in detent.

(4) IP will insure rockets are making contact.

(5) Battery connected.

(6) Ground cable(s) removed from A/C.

(7) Crew chief and gunner arm automatic guns loaded, safing sector and housing unit replaced. Extreme caution used to re-enter A/C, do NOT pass in front of guns.

(8) Inter-communications check made by the crew.

(9) Communications check made with Helicopter Control (¾ Ton mounting Mark 107 radio) who is in contact with Range Control. Communications check made on UHF - - Helicopter crew and Safety Officer also monitors FM Range Control Frequency.

(10) IP request permission from Range Control to go down range.

(11) Instructor Pilot tells pilot-gunner to go SAFE. Safe indicates all armament circuit breakers in and the OFF-SAFE-ARMED switch in the SAFE position. A green light indicates system in the SAFE position. Gun selector in ALL position unless otherwise indicated by Safety Officer. Rocket pair selector switch in "0" position. Rocket intervalometer set to 7.62, aircraft commander takes rocket sight down from stow position, turns on the light switch and checks for illuminated reticle.

(12) Over the Start Fire Line (SFL) the IP has pilot-gunner go to the ARMED position. A Red light will come on and the Safe green light will go out. (M21) Pilot-gunner depresses the dead mans switch and traverses the system through its entrie quadrant and check for the presence of the illuminated reticle.

(13) Crew chief and door gunner places barrel into their M-60 machine guns, loads ammunition, and releases the safety. IP will indicate targets and assures fire is within safety limits which are indicated by white panels.

(14) IP will assure fire is ceased prior to over flying the cease fire and that the pilot-gunner places the Armed switch to the Safe position prior to making a turn and calls out SAFE to the Aircraft Commander. Red light will go out and Green light comes on.

(15) With rockets still remaining in the launcher turns will be to the left or right. When established in the turn the IP gives permission for the appropriate door-gunner to fire. IP or Safety NCO assures fire is within safety panels. IP gives door gunner "Cease Fire". Door-gunner ceases fire and places safety on and clears M60.

(16) Same sequence and procedures will be followed on subsequent firing runs.

(17) When all rockets have fired the IP will visually check while airborne and varify all rockets have fired and the tubes are clear.

(18) In the event a rocket or rockets fail to fire the following procedure will be followed:

Make another firing run. In addition the IP will push the rocket reset button with "0" pr. selector, ARM position and 7.62 weapon selector on the interveloneter and have the Aircraft Commander attempt to fire the rocket. If this attemp fails, the IP will place the rocket pair selector switch to Seven (7) and another attempt will be made. If the rocket or rockets still fail to fire Helicopter Control will be notified. Helicopter will land at the SFL and the rocket will be removed according to rocket unloading procedures. EOD will be notified at to the exact location.

(19) When all firing has ceased the Safety Officer will verify all switches are off, circuit breakers pulled, barrels out of the door gunners machine guns, covers up, and bolt to rear. When this has been accomplished the Safety Officer calls Helicopter Control telling him the system cold. Cold means all the above has been completed.

(20) The returning helicopter is required to call Range Control prior to landing. Range Control will clear all helicopter movements.

(21) On loading the crew chief and door gunner dismount remaining clear of the automatic guns and removes the safing sector and housing unit. With these units removed the automatic guns cannot fire.

NOTE: The above procedures will be followed regardless of the number of helicopters employed on the range (firing lane) at one time. If more than one helicopter is employed the IP in each helicopter has the responsibility of spacing. When this occurs each helicopter will transmit over UHF when "clear", when starting firing run "HOT", and with switches safe "COLD".

4. Any aircraft involved in an accident, incident or ammunition malfunction at one of the helicopter gunnery ranges, will not leave the range until cleared by Range OIC. Any injured personnel that require evacuation will be transferred to a slick helicopter or unloaded gunship prior to evacuation. If the aircraft involved is the only available for evacuation, then the degree of injury of the personnel will dict to any decision to be made by the OIC of the range as to whether to evacuate immediately or wait on the life-saver ship.

5. The following flight route will be utilized by all aircraft proceeding to and from the gunnery range:

After takeoff turn west over golf course, between the hospital and the school. Then south to the south boundary and proceed west along the south boundary to the SW corner of the reservation. Turn north along the west boundary and contact Range Control for instructions and landing clearance. In all cases the flight route by gunships will be over the Fort Sill reservation and will avoid overflight of any built up areas.

6. Use of flak vests or armor chest protectors is mandatory for all crewmembers when participating in live firing exercises on the helicopter gunnery ranges.

7. All flight personnel will fly with sleeves rolled down, visor down, and will wear all other protective equipment when participating in a real gunnery exercise.

8. Armor plates on the pilot and co-pilot seats will be in forward locked position when on a firing run.

9. Any flights off the reservation will be with the rocket pods removed.

FLIGHT TRAINING SAFETY OPERATING POLICIES

1. GENERAL

a. Purpose — This operating procedure is intended to establish safety policies and procedures for Flight Training.

(1) References AR385-63

(2) References TC 1-33

(3) References USAAMC Reg 95-1

b. All air-crew members assigned or attached to the 4th (Aer Arty) Battalion will conform to the policies, set forth herein.

2. COORDINATION

a. Command--Unit commanders down to the lower level will actively supervise and make the necessary corrections to any deviations of the established policies, violations will not be tolerated.

(1) Briefing -- Prior to any training or service mission the commanding officer will assure that a thorough briefing on the mission is given to the pilot in command; operations officers, platoon or section commanders may be used to accomplish this requirement.

(2) Crew assignments -- The assignments of aircrews must be specific as to the duty. Every mission will have crew designations of pilot and co-pilot. This does not apply if an instructor pilot or aircraft commander is on board and functioning in that capacity. An aircraft commander (AC) is defined as a qualified aviator appointed on competent orders. He is authorized to log aircraft commander time when actually in command of an aircraft, a formation, or flight of aircraft in the performance of a mission. Unit commander should be highly selective in appointing aircraft commanders. This should be on basis of demonstrated maturity, judgement, ability to make sound tactical decisions when required, and flying proficiency.

(3) Uniform -- Flight suits or fatigues are required during training, excluding field training exercises. As a minimum, crew members will wear combat type boots, gloves, an accepted uniform, and flight helmet.

(a) The APH-5 or equivalent will be worn during all flights. The visor, either smoked or clear should be in the "down" position during all flights. The only exception to the policy will be during initial pilot preficiency or standardization training when the visor could distort depth perception or some visual reference.

(b) Plastic or nylon watch bands will not be worn on the arm during flight.

(c) Nylon neck scarves will not be worn during flight.

(4) Weather -- The weather minimums listed in AR 95-2 will be adherred to. Training within the control zone will not be permitted when the ceiling is less than 1000 feet or the visibility less than 3 miles. Controlled VFR (CVFR) at Sill or Henry Post Army Airfield must be filed at the base operations. Following control minimums apply:

DAY	NIGHT
F/W 500ft/1 mile	700ft/2 miles
R/W 300ft/½ mile	500ft/1 mile

(5) Training Areas -- The Fort Sill Military reservation provides adequate terrain and facilities for aviation unit training. All training is to be conducted within these confines unless specifically authorized by competent authority. The Post Engineer maintains field airstrips at various locations on the reservation on complete listing is available in USAAMC Reg 95-1. The Fort Sill Local Flying area contains numerous private and civil airfields, the use of these facilities must be approved on an individual mission basis. Practice touch-down autorotations are authorized only for initial-transitions or instructor pilot training. Henry Post Army Airfield is the only authorized area for touch-down autorotation.

(6) Hazardous Conditions -- At any time a dangerous situation developes or presents itself in any form, immediate command action will be initiated to correct the situation. Safety is every individual's responsibility and must be given consideration in all activities.

STANDARD OPERATING PROCEDURES FOR EMERGENCY SITUATIONS

1. The emergency procedures used will be those published in the aircraft -10. In cases where the -10 does not cover the emergency, the pilots common sense and good judgement will dictate the procedure used.