



Safety

**THE EXPLOSIVE SAFETY MONITOR PROGRAM FOR
FIELD TRAINING EXERCISES**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Instruction (AFI) 91-202, *The US Air Force Mishap Prevention Program*, Chapter 10 and AFI 91-201, *Explosive Safety Standards*. It applies to units of 919th Special Operations Wing (919 SOW) assigned. This instruction establishes procedures to promote safe use of explosive devices and smoke producing devices during field training exercises.

SUMMARY OF REVISION

This revision incorporates MAJCOM-directed special inspection procedures required by HQ AFRC message 301427Z July 99; reorganizes text, and changes many procedures. A * indicates revisions from the previous edition of 919 SOWI 91-201.

1. General.

*1.1. Field training exercises provide realistic training scenarios to units that could be exposed to hostile field conditions. Explosive devices, signals and blank ammunitions are often employed to provide realism during these exercises. The use also creates a very real potential for injury if safety precautions are not strictly followed.

1.2. This instruction establishes the Explosives Safety Monitor (ESM) Program. Its purpose is to provide a control structure to help prevent mishaps with explosives used during field training exercises. The program is designed with local training in mind, but safety principles outlined herein also apply to off-base training sites as long as they do not conflict with host base requirements.

1.3. A copy of this instruction will be readily available at all times during transportation, handling and operation of field training exercise munitions.

*1.4. This instruction is to be used in conjunction with applicable higher headquarters directives, Technical Orders (TO) and Air Force Manual 10-100, Airman's Manual.

Report any conflicts in guidance to 919 SOW/Safety (SE). The absence of a safety requirement in any directive does not necessarily indicate that safeguards are not needed. Take prompt action to control any hazards utilizing risk management procedures.

2. References.

2.1. AFMAN 91-201, Explosive Safety Standards

*2.2. AFI 31-209, The Resources Protection Program

*2.3. AFCAT 21-209, Maintenance, GROUND MUNITIONS.

2.4. Technical Order (TO) II A8-2-1, Operations Manual; Hand and Rifle Grenades, 66mm Rocket Launcher, 81mm Mortar, 90mm Recoilless Rifle, 40mm Cartridges, Flares and Signals, Smoke-pots, Land Mines, and cartridge, 84MM M136 (AT-4) Date: 15 June 1997.

2.5. Technical Manual (TM) 9-1370-207-10, Operational Manual; Pyrotechnic Simulators.

2.6. AFI 91-202, The US Air Force Mishap Prevention Program.

*2.7. AFM 10-100, Airman's Manual.

3. Definitions Applicable to this Instruction.

*3.1. **Safety Monitor (ESM).** Person authorized to operate specific training munitions and oversee the issue and use of blank ammunition during field training exercises. ESMs may have other duties to enhance weapons safety during exercises. ESMs will be appointed in writing signed by the unit commander.

3.2. **Field Training Exercise.** Any event such as: Base defense training, Escape and evasion training, where 919 SOW members operate and or handle munitions.

3.3. **Munitions.** Ground-initiated devices containing explosive material used during field training exercises. Examples are battlefield simulators, pyrotechnics, smoke producing devices, blank ammunition, and aircrew survival signal.

3.4. **Aircrew Survival Signals.** AN-MK 13 MOD 0 signals and A/P25S-1 signal kit.

3.5. **Trainees.** Field training participants who are not ESMs.

4. ESM Program Principles.

*4.1. Only trained and qualified ESMs assigned to the 919 SOW will be permitted to handle

and activate munitions (except blank ammunition and aircrew survival signals) during field training exercises.

4.2. ESMs and AFSC 2WOX1 personnel will be the only 919 SOW members to handle or transport munitions (except aircrew survival signals and blank ammunition in individual issue quantities). 2W1X1 may be used when trained and qualified.

4.3. Organizations, which must activate training munitions, will select a maximum of six cautious, mature members to be ESMs.

*4.4. The unit commander will appoint ESMs in writing; provide a copy of the appointment letter to the wing safety office and the munitions section supervisor. See Attachment 8 for sample.

4.5. ESMs will understand, strictly follow, and enforce procedures published in this instruction.

*4.6. Trainees participating in field training exercises who will only operate blank ammunition or aircrew survival signals do not require ESM training. Commanders will ensure these trainees are qualified to operate small arms and aircrew survival signals before allowing weapons or signals to be issued. Special restriction applies to the use of blank ammunition. See Attachment 5 for sample.

5. ESM Training and Certification.

*5.1. ESMs will be trained initially and certification will be on file prior to handling or activating munitions. Annual refresher training must be conducted not later than the last day of the month in which qualified.

5.2. Training must provide hands-on experience operating types of munitions individual ESMs will use during field training exercises. Training must be in accordance with AFMAN 91-201. Trainees must learn hazards of the munitions, and safe operating procedures.

5.3. Explosive Ordnance Disposal (EOD) specialists are preferred to train ESMs. If EOD is unavailable, other explosive experts may conduct ESM training, but only with prior approval of the 919 SOW safety office.

*5.4. It is the responsibility of the user organizations to request training and maintain training records. Contact EOD (882-3505) to obtain training. Organizations being trained normally provide their own munitions.

*5.5. Organizations certify completed ESM initial/refresher training by letter with documentation to the safety office and munitions storage supervisor. Certification indicates full competence in the safe handling and operation of specific munitions. See Attachment 11 for example.

*5.6. Upon completion of initial training, personnel are considered to be qualified ESMs. They are authorized to activate only those types of munitions they were trained on. ESMs are required to re-certify annually. ESMs who become overdue on annual training will not handle munitions during any exercises until annual training is accomplished and certification obtained.

6. Field Training Exercise Explosives Safety Requirements.

*6.1. The unit commander responsible for the exercise will prepare a risk assessment and provide copies to the Wing Exercise Team Chief (EET) and the Safety office. This assessment must meet the requirements of AFMAN 91-201, covering training and exercise plans involving explosives.

*6.2. Exercise planners must expose the minimum number of personnel to the smallest quantity of explosives for the shortest length of time practical.

*6.3. At least two ESMs will be assigned to exercises requiring training munitions. They will work in pairs while operating munitions other than blank ammunition.

*6.4. ESMs will use a worksheet, see Attachment 11, to plan explosive safety considerations during exercises.

*6.5. Only the munitions items listed in this instruction, see paragraph 8, are authorized for use by unit members during exercises.

*6.6. Unauthorized use or experimentation with explosives is extremely dangerous and is prohibited. This includes modifying and disassembling live or dud items.

*6.7. ESMs mark location of duds with red tape, and notify EOD of location. ONLY EOD personnel will handle duds. Someone will standby and control access to the dud location until EOD arrives.

*6.8. Equipment needed by ESMs will depend upon the types of munitions to be used. See attachments 1-5 for specific requirements. Common equipment is leather gloves, wooden stakes, hammer, nails and staples, gas mask MCU-2/P, radio, and red tape (surveyors flagging ribbon NSN 9905-00-194-9698).

*6.9. ESMs will inform Eglin security police and closest fire department of exercise time, location and duration.

*6.10. ESMs will give trainees a weapons safety briefing before the exercise. Minimum items to be briefed are:

*6.10.1. Do not handle or touch any munitions item except aircrew survival signals or blank ammunition issued to you.

*6.10.2. Inform the ESM if you see any munitions item lying about in the field.

*6.10.3. Standard firearms handling safety procedures for personnel who will be issued weapons.

*6.10.4. The blank ammunition operating safety guidance must be given to personnel who will be issued blanks. (see attachment 5)

*6.11. ESMs issue necessary blank ammunition to trainees after trainees have received their weapons safety briefing.

*6.12. Personnel who are armed with live ammunition for resource protection purposes will not otherwise participate in the exercise. When possible, live ammunition will not be the same caliber as blank ammunition used in the exercise. Extreme caution will be used if mission dictates same caliber for resource protection, Commander will insure this concern is covered in the risk acceptance.

7. Emergency Telephone Numbers.

7.1. Medical: 117 (Duke Field Fire Department Rescue Team) 911 (Ambulance)

7.2. Fire: 117 (Duke Field Fire Department)

7.3. Security Police: 882-2502

7.4. EOD: 882-3274/3505

7.5. 919 SOW Command Post: 883-6701/02

7.6. 919 SOW Safety Office: 883-6723/6724. Call Command Post after duty hours.

8. Explosives Limits. Obtain and use the fewest munitions necessary for each exercise. Daily maximum quantities are listed below. The safety office may authorize exceptions to these explosive limits on a case-by-case basis.

8.1. Explosive limits per field exercise.

MAXIMUM QUANTITIES

CLASS/DIV

24 - Simulator Hand Grenade, M116A1	1.3
24 - Ground Burst Simulator, M115A2	1.2
10 - Ground Illumination Signals, M127A1	1.3
10 - Surface Trip Flare, M49A1	1.3
24 - Booby Trap Simulator, M118 and/or M119	1.3
5700 - 5.56MM Blank Cartridge, M200	1.4

2250 - 7.62MM Blank Cartridge, M82	1.
12 - Smoke Grenade, Various Colors, M18 and AN-M8 (HC)	1.4
12 - Smoke and Illumination Signals, MK13 MOD 0	1.4
150 - Blank Pistol Ammunition	1.4

NOTE: Security Forces (SFS) training munitions will not exceed authorizations in AFCAT 21-209, Ground Munitions. Security Forces training will be IAW AFI 36-2225, Security Forces Training and Standardization Evaluation Program.

8.2. Explosive limits per ESM training session.

MAXIMUM QUANTITIES	CLASS/DIV
9 - Simulator Hand Grenade, M116A1	1.3
9 - Ground Burst Simulator, M115A2	1.2
9 - Ground Illumination Signals, M127A1	1.3
9 - Surface Trip Flare, M49A1	1.3
9 - Booby Trap Simulator, M118 and/or M119	1.3
9 - Smoke Grenade, Various Colors, M18 and AN-M8(HC)	1.4
9 - Smoke and Illumination Signals, MK13 MOD 0	1.4

9. Personnel Limits. At least two ESMs will work together while operating munitions. They will ensure that other personnel are not too close to the munitions. Safety separation distances appear in operating safety attachments to this instruction.

***10. Locations.** Local exercises will be conducted on the Eglin reservation. Training areas must be selected with assurance that no military or civilian non-participants will intrude. Locations off Duke Field must be coordinated with range control and the Wing Safety office, prior to use.

11. Munitions Accountability.

*11.1. Units or ESMs requiring training munitions for an exercise or ESM training will contact 919 SOW/EM in writing; 45 days prior to scheduled training to obtain an environmental impact approval for the proposed training/exercise. This approval will be in the form of an AF Form 813, Request for Environment Impact Analysis.

*11.2. Units or ESMs requiring training munitions for an exercise or ESM training will submit a written request to the munitions storage supervisor, through the safety office. See Attachment 9 for a sample. Request will be submitted to the safety office at least two weeks prior to the start of the exercise. A copy of the approved AF FORM 813 must be attached. Munitions will not be issued without safety office approval.

11.3. Munitions will only be issued to ESMs. Munitions will be signed out from the munitions

storage area on an AF Form 1297, Temporary Issue Receipt, which will be used as an inventory log. ESMs are responsible for assuring security and accountability of munitions they receive.

11.4. Only the minimum quantity of munitions necessary for training will be removed from storage facility at any time. Whenever practical, only one day's supply will be withdrawn daily.

11.5. Munitions will remain packaged as received from munition storage area until time to be used. Return unused munitions to original packaging.

11.6. ESMs may issue blank ammunition to trainees after the trainees' weapons safety briefing and requirements of Attachment 5 have been met. Issues will be in minimum quantities necessary for one day's expenditure. ESMs will keep a record of munitions quantities they issue and expend.

11.7. Individuals will police up expended brass to the greatest extent possible and turn-in as residue.

11.8. ESMs will return unexpended munitions to the munitions storage area directly from the field training exercise. All munitions residue must be returned to the munition storage area by the next working day. All expenditures will be certified by an ESM. An expenditure of ground training munitions letter will be submitted to the safety and environmental offices as shown in Attachment 10. Quantities must account for all munitions issued in support of the exercise/training. Certification should be completed at the time of munitions residue turn-in, but not later than 1100 the next working day.

12. Transporting Munitions.

*12.1. Transporting munitions by vehicle requires special operator training and vehicle equipment. Arrangements can often be made to have munitions transported by specialists and vehicles of our munition maintenance section. This is the preferred method for transportation. This service is provided as a courtesy, on a workload-permitting basis, and may not always be available. Requests must be made to the munitions section chief (883-6298) at least two weeks before transportation support is needed. Off-base munitions movements require a commercial driver's license.

12.2. ESMs transporting munitions must comply with explosive transportation requirements set forth in AFMAN 91-201 and subsequent Air Force instructions. Some considerations are:

12.2.1. Only government owned and operated vehicles will be used to transport munitions.

12.2.2. Munitions items will be packed in original or like containers.

12.2.3. Drivers must be trained and tested in operation of the type vehicle used, and informed of the explosive hazards.

12.2.4. Authorized explosives movement routes will be used to the extent possible. Plan to

avoid built-up areas.

12.2.5. Transport munitions strapped down in cargo compartment of vehicles.

12.2.6. Personnel do not ride in cargo compartments of vehicles, which are transporting munitions.

12.2.7. No smoking in vehicles transporting munitions. Keep munitions 50 feet away from open flames.

WILLIAM V. MILLER, Major, USAFR
Chief of Safety

*11 Attachments:

1. Operating Safety – Smoke Producing Munitions
2. Operating Safety – Battlefield Simulators
3. Operating Safety – Trip Flares M49A1
4. Operating Safety – Signals
5. Operating Safety – Blank Ammunition
6. Authorized Munitions Operators Manual
- *7. Sample Letter - ESM appointment Letter
8. Sample Letter - Request for Ground Defense Training/Munitions
9. Sample Letter - Expenditure of Ground Training Munitions
10. Sample Letter - Explosives Safety Monitor Training
- *11. ESM worksheet

Attachment 1

OPERATING SAFETY - SMOKE PRODUCING MUNITIONS

NOTE: Use this training information in conjunction with current standard publications.

1. The following restrictions apply to the use of these items:

WARNING: A 30-minute wait time will be observed prior to approaching a dud fired pyrotechnic initiated device. Dampness or deterioration in the powder may cause prolonged burning.

1.1. The area where the items are to be used must be free of combustible material within a 15-foot radius surrounding the items.

*1.2. Minimum distance:

*1.2.1. Personnel or vehicle: Maintain a minimum of 125 feet separation.

*1.2.2. Facilities without facing window: Maintain a minimum separation of 100 feet.

*1.2.3. Facilities with facing window: Maintain a minimum separation of 200 feet.

*1.2.4. Harden facilities, including hardened aircraft shelters: Maintain a minimum separation of 50 feet.

*1.2.5. Petroleum, oil and lubricants storage: Maintain a minimum separation of 200 feet.

*1.2.6. Aircraft in the open: Maintain a minimum separation of 100 feet or 200 feet if aircraft are explosive loaded.

*1.2.7. Explosive operating locations, holding areas, open storage areas or butler-type storage facilities: Maintain a minimum separation of 200 feet.

*1.2.8. Above ground magazines of block, brick, or concrete construction and from earth covered magazines: Maintain a minimum separation of 50 feet.

1.3. Initiated items will be monitored for proper functioning and residue will be properly disposed of.

1.4. EOD will be notified when a munitions malfunctions.

1.5. Smoke pots and smoke grenades will only be functioned by ESMs. They will not be pre-positioned and left unattended.

2. Hazards. The main hazards from smoke munitions involve smoke inhalation, high temperature burn and fire hazard, and toxic residue on items containing Hexachloroethane, Zinc oxide and Aluminum (HC). HC munitions are marked "HC."

3. Smoke grenades, M-18 and AN-M8 (HC):

WARNING: Smoke produced by HC devices is toxic. Protective masks such as M9 or MCU-2/P, or oxygen breathing apparatus should be available during operation to prevent breathing heavy concentrations or lighter concentrations for an extended period. Chemical agents in dense smoke may burn exposed skin.

WARNING: HC smoke devices may produce a tar-like residue during operation. Residue can cause chemical burns to unprotected skin.

3.1. Choose proper color grenade:

WARNING: DO NOT use pull ring for lifting or handling grenade. If grenade is packed upside down or safety pin is not properly in place, do not attempt to remove it from the fiber container. Notify EOD.

3.2. Remove grenade by placing the palm of the throwing hand over the grenade fuse and turn the bottom of the container upside down. Carefully allow the grenade to slide out of the container. Be sure to slide your thumb over the safety lever before it clears the container.

3.3. Pull the safety pin with a twisting motion and throw or toss the grenade to a designated safe location. Do not hit anything that would deflect the grenade.

WARNING: Once the safety pin has been pulled, DO NOT attempt to reinstall the pin. The grenade must be expended.

3.4. Grenades have a 2-second delay and smoke for 50 to 90 seconds.

Attachment 2

OPERATING SAFETY - BATTLEFIELD SIMULATORS

NOTE: Use this training information in conjunction with current standard publications.

1. The following restrictions apply to the use of these items:

WARNING: A 30-minute wait time will be observed prior to approaching a dud fired pyrotechnic initiated device. Dampness or deterioration in the powder may cause prolonged burning.

1.1. The area where the items are to be used must be free of combustible material within a 15-foot radius surrounding the items.

1.2. Minimum distance:

1.2.1. Personnel or vehicle: Maintain a minimum of 125 feet separation.

1.2.2. Facilities without facing window: Maintain a minimum separation of 100 feet.

1.2.3. Facilities with facing window: Maintain a minimum separation of 200 feet.

1.2.4. Harden facilities, including hardened aircraft shelters: Maintain a minimum separation of 50 feet.

1.2.5. Petroleum, oil and lubricants storage: Maintain a minimum separation of 200 feet.

1.2.6. Aircraft in the open: Maintain a minimum separation of 100 feet or 200 feet if aircraft are explosive loaded.

1.2.7. Explosive operating locations, holding areas, open storage areas or butler-type storage facilities: Maintain a minimum separation of 200 feet.

1.2.8. Above ground magazines of block, brick, or concrete construction and from earth covered magazines: Maintain a minimum separation of 50 feet.

1.3. Initiated items will be monitored for proper functioning and residue will be properly disposed.

1.4. EOD will be notified when a munitions malfunctions.

1.5. Battlefield simulators will only be functioned by ESMs. They will not be pre-positioned and left unattended.

2. Hazards. The main hazard from simulators is blast, with accompanying fragments. May ignite combustible materials.

3. Ground Burst Simulator M115A2 and Hand Grenade Simulator M116A1.

WARNING: The M115A2 may have markings, which indicate a 15-yard hazard distance. Disregard those markings. Field tests show an actual 35-meter personnel safety distance. Gravel, sticks, and other debris may be projected at high velocity.

3.1. ESM personnel will wear a leather glove on the holding hand when operating simulators. Long sleeves will be rolled down.

3.2. Simulators will not be carried in such a manner that they may be dropped or lost without the knowledge of the individual.

3.3. Operating procedures.

WARNING: Do not remove simulator safety clip until immediately prior to functioning.

3.3.1. Remove simulator safety clip.

3.3.2. Carefully pull off the cap of the fuse lighter.

3.3.3. Grasp the simulator in the throwing hand and hold it away from the body.

WARNING: Never pull the cord more than once or attempt to determine if fuse delay has functioned. Always immediately throw the simulator.

3.3.4. With the other hand, jerk the cord once and immediately throw the simulator. Immediately turn away from the simulator to protect faces and eyes. If the fuse assembly separates from the body, place the simulator aside, mark the location and call EOD for disposal.

3.3.5. Immediately throw the simulator ensuring personnel are at least 125 feet from the functioning simulator. Avoid throwing toward trees or other obstacles that may deflect the simulator.

3.3.6. If a simulator fails to function, the area will be marked with a red piece of tape tied to a stake or adjacent tree at eye level. The ESM or appointed member will notify EOD.

3.3.7. Following the exercise the training area will be policed and all duds accounted for.

WARNING: Only EOD personnel will handle and dispose of dud simulators.

4. Booby Trap Simulators, M118 and M119.

4.1. M118 (illuminating) and M119 (whistling) principally differ in having either a 28-second illuminating flame versus a whistle lasting 2 1/2 to 5 seconds.

WARNINGS:

4.1.1. Do not attempt to use simulators by taping or wiring it to the mounting surface.

4.1.2. Do not remove the simulator cap out of step sequence.

4.1.3. Do not initiate while holding in hand.

4.1.4. Booby trap simulators do not have a delay type fuse. Use caution when setting them up.

4.2. Booby trap simulators will not be carried in such a manner whereby they may be dropped or lost without the knowledge of the individual.

4.3. Functioning procedures.

4.3.1. Remove booby trap simulator from the cardboard shipping container.

4.3.2. Select two trees, stakes, or other objects to which a trip wire can be fastened so that the wire will extend across the path to be trapped.

4.3.3. Make a loop in one end of the wire and pass it downward through the top staple on the first tree.

4.3.3.1. Turn it through 180 degrees against resistance of one prong of the top staple.

4.3.3.2. Turn it through 90 degrees against resistance of bottom nail and across to the second tree.

4.3.4. Fasten the trip wire to the second tree by wedging the nail between the staple mentioned in paragraph (3) and the tree, so that the nail is held by the friction of the staple and the tree to ensure a taut and secure trip wire.

4.3.5. Carefully remove the tape securing the cap. Remove the cap from the simulator and tie the pull cords to the hook at the upper end of the spring. Nail the simulator in position directly above the spring.

WARNING: Dry grass or leaves directly underneath may become ignited. DO NOT function the simulator while holding it in your hand as this can cause injury.

4.3.6. If a booby trap simulator fails to function, the area will be marked with a piece of red tape tied to a stake or an adjacent tree at approximately eye level. The ESM or an appointed member will notify EOD.

4.3.7. Following the exercise, the training area will be policed for burned (functioned) booby traps and all duds will be accounted for. Live booby traps will be located and tripped. DO NOT

Attachment 3

ATTEMPT TO REMOVE AND REUSE

OPERATING SAFETY - TRIP FLARES M49A1

NOTE: Use this training information in conjunction with current standard publications.

1. Hazard. The principal trip flare hazard is potential for starting a fire and burning personnel.

WARNING: Trip flares burn at a very high temperature. Care must be taken when using around personnel and combustible material such as dry vegetation.

WARNING: Trip flares do not have a delay type fuse. Use extreme caution when setting them up. Personnel not actually working on the flare should be no closer than 150 feet from the firing site.

WARNING: A 30-minute wait time will be observed prior to approaching a dud fired pyrotechnic initiated device. Dampness or deterioration in the powder may cause prolonged burning.

2. Functioning Procedures:

2.1. Trip flares will not be carried in such a manner whereby they may be dropped or lost without the knowledge of the individual.

2.2. Remove trip flare from the wooden shipping container.

WARNING: Inspect the flare-mounting bracket immediately after removing from the shipping container and inspect for missing safety clips and corrosion.

2.3. Loosen the two wing nuts on the sides of the metal mounting bracket, remove the flare carefully, being sure to hold the safety lever down. After insuring the safety clip or pin is working, lay the flare aside and nail the metal mounting bracket to a tree or stake insuring the top of the bracket is pointed upward.

2.4. Place the flare securely in the mounting bracket. Remove the safety clip and pull pin assembly. Insert the pull pin into the safety clip holes.

2.5. Slide the flare back into the holding bracket ensuring the safety lever is centered in the cutout on the metal holding bracket and that the bottom of the safety lever will clear the bottom of the cutout when tripped. Tighten both wing nuts on the side of the mounting bracket to hold the flare in this position.

2.6. Attach the trip wire to a point away from the flare. Attach the other end to the pull pin and the flare is armed.

2.7. The ESM or an appointed member will insure a record is made of all trip flares installed in the exercise area.

2.8. Following the exercise the training area will be policed for all flares that were not tripped. Once located, the flares will be tripped. Do not attempt to remove untripped flares.

2.9. The training area will be policed for all functioned trip flares. Duds will be accounted for and marked with a piece of red tape tied to stake or adjacent tree at approximately eye level. The ESM or appointed member will notify EOD.

Attachment 4**OPERATING SAFETY - SIGNALS**

NOTE: Use this training information in conjunction with current standard publications.

1. Hazards. Fire and burn potentials.

WARNING: A 30-minute wait time will be observed prior to approaching a dud fired pyrotechnic initiated device. Dampness or deterioration in the powder may cause prolonged burning.

2. Ground Illumination Signal M127Al.

2.1. Signals will not be carried in such a manner whereby they may be dropped or lost without the knowledge of the individual.

WARNING: M127Al signals burn at a very high temperature. Care must be taken when using them around dry vegetation and personnel.

2.2. Functioning procedures:

WARNING: If the metal shipping container is bent, rusted or otherwise corroded, do not open it. Put it aside; mark its location so the EOD may dispose of it.

2.2.1. Open the metal shipping container and remove the signal insuring the signal is not dropped.

2.2.2. Before firing the ground illumination signal inspect the primer and firing cap.

2.2.3. Place the signal in your left or right hand with the capped end pointing upward.

2.2.4. Remove the firing cap and slide it on the end with the red ring until the top edge of the firing cap makes contact with the bottom edge of the red ring.

2.2.5. Fully extend the arm and hand holding the flare away from your body; the signal will be pointed upward at approximately 85 degrees, your holding hand will be on the gummed label.

2.2.6. Keeping the holding arm and hand firm, strike the cap with the open palm of the free hand.

WARNING: If the signal fails to function, do not look into the open end of the signal. Keep the holding arm and hand firm. With the free hand slide the firing cap down until the red ring is visible. With the open palm of the free hand, strike the cap again. Should the signal fail to

function a second time, place the signal on the ground, and mark the location with a piece of red tape tied to tree or stake. Remove all personnel a minimum of 225 meters away. EOD will be notified by ESM to dispose of the dud.

2.2.7. Do not replace the firing cap over the open end after firing the signal. Maintain the empty canister for turn-in as munitions residue.

3. Signal, Smoke and Illumination MK13 MOD 0.

WARNING: Signals burn at high temperatures. Care must be taken when using around personnel and dry vegetation.

3.1. MK13 signals will not be carried in such a manner whereby they may be dropped or lost without the knowledge of the individual.

3.2. Functioning procedures:

WARNING: Do not point signal towards yourself when functioning.

3.2.1. Remove the cap from the end to be ignited.

3.2.2. Flip the pull ring over the signal rim.

3.2.3. Push the ring down to break the seal.

3.2.4. If the seal doesn't break, push the ring until it bends against the case.

3.2.5. Flip the bent ring back to the original position and use it as a lever to break the seal.

3.2.6. Ignite the signal by a quick pull on the ring.

3.2.7. Hold it at arm's length 45 degrees from horizontal.

3.2.8. If the smoke signal flames, douse it momentarily in water.

3.2.9. After using one end, douse the signal in water to cool it. Save it for use on the other end, if needed.

3.2.10. If an MK13 signal fails to function, the area will be marked with a piece of red tape tied to a stake or adjacent tree at approximately eye level. Life support personnel will notify EOD.

3.2.11. Following the exercise, the training area will be policed for burned (functioned) MK13 signals and all duds will be accounted for.

Attachment 5

OPERATING SAFETY - BLANK AMMUNITION

The purpose of this attachment is to establish and standardize procedures and responsibilities for the 919 Special Operations Wing concerning the inspection, issue and turn-in of blank munitions used during field exercise.

1. Objective: IAW AFMAN 91-201, para 2.14, it is the responsibility of each commander, or member designated by the Squadron Commander, to ensure live munitions are not introduced into an exercise.

2. Requirement: Members who are armed with live ammunition performing official duties will not be permitted into the exercise area. When possible, individuals responsible for performing “over watch” (Guard Duty), for resource protection, will not be armed with same caliber as blank ammunition being used in field training exercises. The base of the magazine will be painted red to identify the magazine as containing “Live Rounds”. Prior to the start or termination of training, check all ammo pouches, rucksacks, mobility bags and magazines for live and blank ammunition.

3. Inspection / Loading:

WARNING: Inspect each round to be sure it is a blank before use. A possibility of live rounds being mixed with blanks exists.

3.1. An explosive safety monitor or Combat Arms official designated by the Commander will visually inspect all blank munitions utilized by the 919 Special operations wing prior to use in any/all field exercises.

3.2. An explosive safety monitor or Combat Arms official designated by the Commander will supervise the loading of all magazines with blank munitions.

3.3. An explosive safety monitor or Combat Arms official designated by the Commander will ensure that all magazines containing blank munitions are sealed with tape and marked with the initials of the member responsible for loading.

3.4. An explosive safety monitor or Combat Arms official designated by the Commander will ensure that all magazines containing blank munitions are stored in a metal container during exercises. The container will be sealed and “**BLANK AMMO**” will be written on the outside of the container.

4. ISSUE:

4.1. A member designated by the Commander will issue blank munitions for use in field exercises.

4.2. An explosive safety monitor or Combat Arms official designated by the Commander will only issue munitions to a POC, Supervisor or Team Leader via AF Form 1297 for the container of blanks. Prior to the POC, Supervisor or Team Leader issuing blank munitions to their personnel, they will inspect every weapon to ensure they are in proper working order.

4.3. All AF Form 1297's will be maintained for a period of 90 days from date of exercise by the squadron supply representative.

5. Turn-in:

5.1. All unexpended rounds, dud and/or damaged blank munitions will be returned to the issue point upon completion of the exercise. Supervisors and Team Leaders will ensure all personnel and equipment is inspected for any unfired blank rounds.

5.2. The Commander will designate a Senior NCO to monitor the removal of blank munitions from magazines.

5.3. The squadron supply NCO will visually inspect all unexpended blank munitions to ensure "blank rounds" are not stored with live munitions.

5.4. Upon completion of the inspection, unexpended blank munitions will be stored in the original container according to lot number and a seal will be placed on the container. The outside of the container will be marked "BLANK AMMO" along with the quantity. AF Form 2005, Issue/Turn-In Request, will be filled out for the number of rounds expended {MSI} [Certified Custody Expenditure]. The munitions will then be returned to the supply point, "TIN" {Turn In} status.

5.5. Upon return from exercise all weapons will be cleared at clearing barrel prior to turn-in to armory or storage vault.

6. Safe Firing Distances:

6.1. M-16A2 Rifle No less than 30 feet TO: 11W3-5-5-1.

6.2. M-249 SAW No less than 30 feet TO: 11W3-5-5-51.

6.3. M-60 MG No less than 40 feet TO: 11W1-12-8-52.

7. Emergency Procedures/Communications

7.1. The safety official designated by the Exercise Commander, will have a Cellular Phone or radio to enable him to contact emergency personnel in case of an accident.

7.2. The safety official will obtain a list of emergency numbers to contact from the exercise area in case of any accidents. He/she will ensure that the Security Forces Commander, Flight Leader, Munitions (MASO), Medical personnel and Ground Safety are notified of any accidents. He/she

will be responsible to record the events and names of personnel involved and write reports as required in support of the mishap investigation.

7.3. The safety official will conduct a safety briefing prior to exercise beginning; a sign in sheet will be completed and maintained for a period of 90 days in the squadron safety office. As a minimum the following areas will be addressed:

7.3.1. Explosive limits, including the hazard class/division and compatibility of the explosives involved.

7.3.2. Personnel limits, including workers and others.

7.3.3. Exact locations of use to include method of employment.

7.3.4. Safety requirements include special requirements for personal protective clothing and equipment.

7.3.5. Step-by-step procedures for doing the task to include the process of loading, unloading, marking magazines, issue and turn-in procedures and the certification and separation of live and blank ammo. (Refer to specific steps in the TO or other directives for applicable portions of the operation)

7.3.6. Actions to be taken during an emergency or when abnormal conditions are noted.

7.4. The safety official will establish a weapon clearing area where weapons can be checked prior to and after exercises or in case of accidents during the exercise

Attachment 6

AUTHORIZED MUNITIONS OPERATORS MANUALS

1. T.O. II A8-2-1 includes information on:
 - 1.1. Ground illumination signal M127A1.
 - 1.2. Surface trip flare M49A1.
 - 1.3. Smoke grenades M18 and AN-M8 (HC).
 - 1.4. T.M. 9-1370-208-10 includes information on:
 - 1.4.1. Hand grenade simulator M116A1.
 - 1.4.2. Ground burst simulator M115A2.
 - 1.4.3. Booby-trap simulators M118 and M119.
 - 1.4.4. T.O. 14S1-3-51 has information on MK13 MOD 0.

Attachment 7

Sample Letter of Appointment

**DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE**

(Date)

MEMORANDUM FOR 919 SOW/SE

From: (Your Squadron CC)

Subject: Explosive Safety Monitor

The following individuals are assigned additional duties as Explosive Safety Monitors.

Name	Rank	Office Sym	Duty Phone
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JOE SAFETY, Lt Col, USAFR
Squadron Commander

SAMPLE LETTER

Attachment 8

SAMPLE LETTER

**DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE**

(Date)

MEMORANDUM FOR 919 SOW/SE
919 MXS/LGMVW

FROM: 919 CES/CC

SUBJECT: Request for Ground Defense Training Munitions

1. Training will be conducted on 14 May 2001 beginning at 0830.
2. Training will be in area 2914A, Range 52B.
3. There will be 52 personnel training and 2 ESMs to conduct operations IAW 919 SOWI 91-201
4. Request deliver of the following munitions items to range 52B not later than 0730 on 14 May 2001:

TYPE	QTY
M115 Ground Burst Simulator	10 EA
5.56 Ammunition	2500 RDS
M116A1 Grenade Simulator	5 EA

5. ESMs names and date of training
6. Munitions residue will be ready for pick up on by 1500 on 15 May 2001

Commander or Senior ART Signature

SAMPLE LETTER

Attachment 9

SAMPLE LETTER

**DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE**

(Date)

MEMORANDUM FOR 919 MS/LGMVM

FROM: 919 CES/CC

SUBJECT: Expenditure of Ground Training Munitions

1. Training was completed on 14 May 1994 and the following munitions were expended/returned:

MUNITIONS	QUANTITY DRAWN	QUANTITY EXPENDED	QUANTITY RETURNED
M115 Ground Burst Simulator	10 EA	10 EA	0
5.56 Blank Ammunition	2500 RDS	2000 RDS	500 RDS
M116A1 Grenade Simulator	5 EA	5 EA	0

2. The above listed munitions were expended IAW AFR 50-41.

ESM SIGNATURE

SAMPLE LETTER

Attachment 10

SAMPLE LETTER

**DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE**

(Date)

MEMORANDUM FOR 919 SOW/SE

FROM: 919 CES/CC

SUBJECT: Explosives Safety Monitor Training

1. These CES members received Training in the safe handling and operation of specific munitions for field training exercises:

- a. TSgt Janet Ganett
- b. CMSgt Alonzo Fournier
- c. Sgt Balmar Cortez
- d. Capt Alice Major

2. Training was conducted 1 Oct 94 by MSgt Elmer Podnell, of the 3246 Equipment Maintenance Squadron, EOD unit.

3. Members were trained to operate the following items:

- a. M116A1 Hand Grenade Simulator
- b. M118 and M119 Bobby Trap Simulator
- c. M115A2 Ground Burst Simulator
- d. M18 and AN-M8 (HC) Smoke Grenades

Commander or Senior Art Signature

cc: LGMRM
SAMPLE LETTER

Attachment 11

ESM PLANNING LIST

1. Verify approval of request.
2. Availability of location.
3. Required number of ESMs available?
4. Are armed personnel available for resource protection (when necessary)?
5. Have requests been submitted for issue of items? (LGMRM)
6. Has EOD been notified of dates and times?
7. Have transportation arrangements been made?
8. Is an equipment kit stocked and available?
9. Have preliminary training/briefing times been established, i.e. blanks, scenario, etc?
10. Have base security police and fire department been advised of training location and time?