

**BY ORDER OF THE COMMANDER  
51ST FIGHTER WING**

**51ST FIGHTER WING INSTRUCTION  
31-117**



**10 FEBRUARY 2026**

**Security**

**TRAINING MARKER MANAGEMENT**

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This instruction implements Department of the Air Force Instruction (DAFI) 31-117, *Arming and Use of Force*. It establishes policies, procedures, and requirements for the use of simulated munitions during controlled force-on-force or base defense training for all Reservists, Air National Guard, Civil Air Patrol and all 51 Fighter Wing (FW) personnel on Osan Air Base (AB), Republic of Korea. It also implements established guidelines in Headquarters Air Force Security Forces Center Close Combat Mission Capability Kit (CCMCK) Training Concept on Operations (CONOPS). This instruction applies to all 51 FW personnel on Osan AB, Republic of Korea. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

**SUMMARY OF CHANGES**

This document has been substantially revised and needs to be completely reviewed. Major changes include updated safety zones. Updated safety gear and reference dates. It supersedes 51FWI31-1171, 16 November 2021.

## 1. Introduction to Center Close Combat Mission Capability Kit (CCMCK) Operations.

1.1. Overview. This chapter implements and establishes policies, procedures, and requirements for the use of dye-marking cartridges during Air Force force-on-force training on Osan AB. This instruction applies to 51 FW personnel participating in integrated field training exercises on Osan AB.

1.1.1. Dye-marking cartridges are a reduced energy, reduced impact, training ammunition that can be safely fired from everyone's assigned service weapon. A conversion kit is installed in each weapon to allow use of dye-marking cartridges and preclude the chambering of live ammunition. On impact, the markers produce a detergent-based, water-soluble inert color marking, similar to a paintball.

1.1.2. All personnel who use, supervise, or manage training using dye-marking cartridges are responsible for complying with this instruction. Only certified Security Forces Training Instructors may instruct and supervise the live-fire use of dye-marking cartridges in accordance with the Air Force Security Forces Center (AFSFC) CCMCK Training CONOPS.

1.2. CCMCK Concept. Dye-marking cartridges and weapon conversion kits enhance learning throughout the full spectrum of force-on-force training. The incorporation of dye-marking cartridges enhances mission readiness by expanding training capabilities and eliminating most limiting factors (LIMFACs) associated with blank ammunition and laser technology. The pain penalty reinforces the use of proper cover and emphasizes to Airmen that even if they are wounded, they can continue to fight to the enemy, move to safety, and/or communicate with team members. Eliminating these LIMFACs includes reducing the minimum safe firing distance from 20 feet to five feet. As an example, using dye-marking cartridges enables:

- 1.2.1. Force-on-force training scenarios.
- 1.2.2. Patrolman survival/safety training.
- 1.2.3. Firearm retention drills.
- 1.2.4. Routine and felony traffic stop training.
- 1.2.5. Judgmental shooting (i.e. shoot/don't shoot).
- 1.2.6. Protection of PL Resources.
- 1.2.7. Building/Room entries.
- 1.2.8. Hostage rescue.
- 1.2.9. Aircraft/vehicle/bus/boat assaults.
- 1.2.10. Military Operations on Urban Terrain (MOUNT).
- 1.2.11. Close Quarters Battle (CQB).
- 1.2.12. Individual and Team Movement Tactics.
- 1.2.13. Operating in low light environments.

1.3. Conversion Kits and Dye Markers. As previously mentioned, the CCMCK system allows students to use their assigned duty weapons. To prepare them for dye-marking training, specific steps must be followed for installation. Chief Range Officers (CRO), Range Safety

Officers (RSO), and Training Cadres (TC), must supervise members changing the configuration of weapons from live to CCMCK.

1.3.1. Use only conversion kits authorized in [Attachment 4](#). Do not install or use kits not displayed on that list. When an actual weapon part is replaced with a conversion kit, place the actual weapon part into the conversion kit box. This maintains accountability and also ensures weapon components return to their original weapon. Do not mix parts with other students.

1.3.2. Use only dye markers authorized in [Attachment 4](#). Do not load or fire cartridges not displayed on that list. Dye markers are real explosives, with a real projectile. Munition custodians and CROs must ensure security, safety, and transportation standards for Hazard Class/Division 1.4 are maintained. Follow the procedures for procurement, transportation, and safety in accordance with DESR6055.09\_DAFMAN91-201, *Explosives Safety Standards*.

#### 1.4. Responsibilities.

1.4.1. Chief Range Officers (CRO). The CRO will be trained and appointed in writing by the unit commander, IAW DAFMAN 31-131V1, *Combat Arms Training and Maintenance (CATM) Operations*, section 3.3.2.2., and is responsible for managing personnel, equipment, and ranges during each training event. While the CRO may not be the primary instructor, he/she will be the direct link to the range complex and have ultimate control during training scenarios. Additionally, they will be responsible for ensuring that entry requirements into training areas include inspection of all pockets, pouches, and gear for real-world knives, weapons, ammunition, or other hazardous/dangerous items. The CRO will not be engaged in any other duties while performing CRO responsibilities IAW DAFMAN 31-131V1. The CRO will:

1.4.1.1. Be an E-6 or above.

1.4.1.2. Be trained and task-certified by the Combat Arms NCOIC on applicable range management duties annually and must have an AF Form 483, *Certificate of Competency*, signed by the Combat Arms Non-Commissioned Officer In Charge (NCOIC), on their person while operating the range. This training must be documented in the individual's training record on an DAF Form 797, *Job Qualification Standard Continuation/Command JQS* and DAF Form 1098, *Special Task Certification and Recurring Training*.

1.4.1.3. Ensure adequate Range Safety Officers are on site during training.

1.4.1.4. Establish an Entry Control Point (ECP) for a single point of entry to the training area and training zones. Also, establish personnel and equipment staging areas and evacuation rally points.

1.4.1.5. Monitor all range openings and closings, equipment issue, and training events to maintain a safe training environment.

1.4.1.6. Assign range guards, as required, to control access to the training area.

1.4.2. Range Safety Officers (RSO). The RSO will be trained and appointed in writing by the unit commander, IAW DAFMAN 31-131V1, section 2.3.2.5., and is responsible for ensuring all training is conducted safely and in accordance with established guidelines.

Additionally, the RSO must have a copy of the TO 11W2-9-4-11, *Technical Manual Operator's Manual for Close Combat Mission Capability Kit (CCMCK)*, AFSFC CCMCK Training CONOPS and this instruction on-hand during each training event. The RSO will not be engaged in any other duties while performing CRO responsibilities IAW DAFMAN 31-131V1. The RSO will:

1.4.2.1. Be an E-5 or above.

1.4.2.2. Be trained and task-certified by the Combat Arms NCOIC on applicable range management duties annually and must have and AF Form 483, *Certificate of Competency* signed by the Combat Arms NCOIC, on their person while operating the range. This training must be documented in the individual's training record on an DAF Form 797 and DAF Form 1098.

1.4.2.3. Inspect the training area for any objects, obstacles, or lethal munitions that pose a threat or hazard.

1.4.2.4. Conduct a pre-training safety brief with all trainers, students, and support personnel, as listed in [Attachment 2](#).

1.4.2.5. Install or supervise the installation of weapon conversion kits in accordance with the AFSFC Close Combat Mission Capability Kit Training Concept of Operations.

1.4.2.6. Oversee the storage, verification, and issuing of training ammunition.

1.4.2.7. Designate the range as either 'Hot' or 'Cold'. These terms refer to whether training is being conducted on the range or the range is not in use and is safe for personnel to enter.

1.4.3. Training Cadre (TC). TCs are responsible for running the scenarios and verifying all training objectives are met. TCs must work together with the RSO to ensure training remains realistic and safe, and to implement the evolution brief in [Attachment 3](#) and scenario execution checklist in [Attachment 6](#). The TC will:

1.4.3.1. Be certified annually by attending unit developed train-the-trainer course, or a course equivalent IAW DAFMAN 31-131V2, *Small Arms and Light Weapons Qualification Programs*, figures 16.1 through 16.3. and 16.5. This training must be documented in the individual's training record on an DAF Form 797 and DAF Form 1098.

1.4.3.2. Assign weapon types and ammunition colors to participants.

1.4.3.3. Conduct a debrief and lessons learned with all participants.

1.4.3.4. Request additional TCs if running multiple scenarios.

## **2. DYE-MARKING CARTRIDGE USE DURING TRAINING .**

2.1. Training Areas. Training areas will be comprised of a minimum of three distinctive zones: Unsafe Zone, Semi-Safe Zone, and Safe Zone.

2.1.1. Unsafe Zone: The area where all scenarios take place. Personnel in this area are required to wear all mandatory personal protective equipment (PPE) at all times, until the range is certified 'Cold'.

2.1.2. Semi-Safe Zone: The area where all lethal weapons and ammunition are kept. This is the transition area between the pre-scenario brief and the actual training.

2.1.3. Safe Zone: The area where all briefings, equipment storage, and scenario preparation takes place. This area must be separated from the Unsafe Zone by a physical barrier or be beyond the round impact area (145 meters).

2.1.4. All zones will have controlled entry/access points (doors, range guards, signs, etc.).

2.1.5. The following are the only approved dye-marker training sites on Osan AB:

2.1.5.1. Zone 1 Building 1234 (Security Forces Training Compound).

2.1.5.2. Zone 2 Alpha Site with prior approval from 51 MUNS/CC (Note: Pyrotechnics, such as ground burst simulators, are not authorized for use in this area).

2.1.5.3. Zone 3 (MOUT Village “Little America”).

2.1.5.4. Zone 4 Rush Park (Shoot House).

2.2. Safety. While on Osan AB, adhere to all requirements in TO 11W2-9-4-11, AFSFC CCMCK Training CONOPS, and this instruction, the most restrictive guidance will apply.

2.2.1. Personnel using dye-marking cartridges do not have to be qualified on the weapon used during training. However, they must be trained on the safety features of the weapon and have a working knowledge of the mechanical features. This training will be documented on an DAF Form 1098 or DAF Form 797. Exception: Security Forces Personnel performing Shoot, Move, and Communicate (SMC) must be qualified on the M4 prior to training.

2.2.2. Only approved marking ammunition and properly modified weapons are authorized for use in the training area.

2.2.3. Use extreme care when handling dye-marking cartridges. Marking ammunition is more susceptible to damage than service ammunition. Do not exert pressure on the projectile. Damaged projectiles may cause jammed weapons due to projectiles becoming lodged in the barrels. Do not reuse cartridges that have been jammed in a weapon. Any unused CCMCK 5.56MM marking ammunition must be repacked with the tip up to prevent marking compound from coming out.

2.2.4. If resources are available, paint or tape a two-inch blue stripe on blank ammunition containers and magazines.

2.2.5. With the exception of the armed weapon courier, no live ammunition is allowed in the written training scenario, or in the training site. Everyone involved in the event will verbally declare they do not have live ammunition. If a live round is found or suspected in the training area, the phrase: “LIVE ROUND, LIVE ROUND, LIVE ROUND” will be shouted, echoed, and transmitted on the radio net. Additionally, execute the following steps:

2.2.5.1. All operations and scenarios will cease immediately.

2.2.5.2. The CRO will direct a 100 percent physical verification of all ammunition in the field training area and consolidate it in the ammunition holding area.

- 2.2.5.3. If on Osan AB, the CRO will notify the Law Enforcement Desk immediately.
- 2.2.5.4. Operations will not resume until the CRO and RSO physically verify all remaining rounds of ammunition are blank.
- 2.2.5.5. Upon completion of training, the CRO will notify the chain of command who, in turn, will decide whether training will continue.
- 2.2.6. Personnel using CCMCK marking ammunition are required to follow good personal hygiene practices (i.e., hand washing, cleaning of contaminated clothing and equipment), following exposure/contamination with marking compounds. Seek medical care in the event of acute eye contamination, skin irritation, or ingestion of marking compound.
- 2.2.7. Dye-Marking Cartridges will not be fired in the direction of personnel closer than five feet.
- 2.3. Procedures. Due to the proximity of trainees to each other and the nature of pointing weapons at other individuals during training, extra care must be given to safety considerations. These procedures will ensure a safe training environment.
- 2.3.1. The RSO will perform the safety brief in [Attachment 2](#), explain the safety considerations in [paragraph 2.2](#), and ensure all personnel have safety equipment available that is outlined in [Attachment 4](#).
- 2.3.2. Prior to training execution, the RSO will inspect the range, all ammunition crates, magazines, weapons, and individual combat equipment (ICE) to verify no live rounds are brought into the training site.
- 2.3.3. Weapons will be cleared by the RSO in accordance with DAFMAN 31-131V3, *Small Arms and Light Weapons Handling Procedures*. They will visually inspect the barrel of each weapon to ensure there is no debris stuck in the bore. This can be accomplished by placing a cleaning rod through the barrels or disassembling the weapons to look down the back of the barrels. At no time will any personnel look through the muzzle of an assembled weapon.
- 2.3.4. RSOs and TCs will install conversion kits and store actual weapon parts IAW [paragraph 1.3.1](#) of this instruction. Once conversion kits are installed, the RSO and TCs will place the weapons into the Semi-safe Zone.
- 2.3.5. The weapon courier, with live ammunition for real-world security, must wear a vest for identification purposes. They will not participate in training or leave the Safe Zone.
- 2.3.6. Instructors issuing dye-marking cartridges in the Semi-safe Zone will inspect each box they hand out to ensure only marking rounds are introduced into the training area. A fire extinguisher will be positioned at the issue area.
- 2.3.7. When assigned a scenario and briefed on instructions, students will enter the Semi-safe Zone and load their magazines. A pre-designated official will be on site, and will certify that only dye-marking cartridges are loaded into magazines.
- 2.3.8. Prior to entering the Unsafe Zone to participate in the actual scenario, the RSO will visually inspect each person for all required PPE.

2.3.9. With all equipment, PPE, weapons, and rounds, all personnel will enter the Unsafe Zone simultaneously. The RSO will announce that the zone is 'Hot' and training will begin. If any mandatory safety equipment becomes dislodged during training, the individual will immediately cover the area with his/her hands, take a knee and call "cease fire." DO NOT remove any equipment until instructed to do so. Once the equipment is replaced, the training can continue.

2.3.10. If anyone sees new personnel approach the training area, they will direct those personnel to the range Officer in Charge (OIC) or RSO to ensure the new personnel receive a safety brief.

2.3.11. Upon completion of each scenario, students will transition from the Unsafe Zone to the Semi-safe Zone. Personnel are authorized to remove PPE only when the zone is certified 'Cold' by the RSO. The RSO will then verify that each weapon is clear by running a clearing rod through the muzzle of the barrel to ensure the barrel is clear of all debris. If a ruptured cartridge or projectile is stuck in the chamber or bore, a cleaning rod will be used to remove the casing as deemed necessary. All personnel will be instructed to return all unexpended rounds and cleared weapons to the staging area.

2.3.12. At the end of the operation, all personnel will place the live bolt back into the weapon system, turn-in firearms, and marking cartridge bolts along with any remaining munitions to the CRO and the RSO. For rifles, the CRO or RSO will place them into a 'Rack Safe' configuration: bolt forward, on semi, trigger depressed, and dust cover closed.

2.3.13. Ammunition and residue will be collected at the issue area. At the issue area, the RSO will inspect each magazine, all ICE, and receive a verbal certification from each individual stating that his/her uniform is free of live and expended ammunition.

2.3.14. A sweep of the entire training area will be conducted by all personnel to ensure unexpended/expended cartridges and/or residue are not left behind. Collect unexpended cartridges and/or residue to be packaged in approved containers for shipment back to the Munitions Storage Area.

2.3.15. During weapons cleaning, all students must ensure their barrels are free of debris. Dye-marking projectiles get lodged in barrels often. While a barrel may appear clear and empty, extra attention must be given to the grooves inside where there may be plastic and paint residue.

2.4. Emergency Actions. In the event of an emergency, immediately stop all operations and based on the situation, get personnel to a safe location. Once at safe location, obtain personnel accountability and implement the following procedures:

2.4.1. Lightning.

2.4.1.1. A *Lightning Watch* will be in effect 30 minutes prior to thunderstorms being within 5 nautical miles (nm). Initiate controlled termination procedures for all explosives operations when a Lightning Watch occurs.

2.4.1.2. A *Lightning Warning* will be in effect whenever lightning occurs within a 5 nautical miles radius of base. Immediately cease all training and evacuate all personnel (if necessary) to a location determined by the CRO.

- 2.4.1.3. After the lightning has passed, the CRO will assess risks and determine whether to continue training.
- 2.4.2. Injured Personnel.
- 2.4.2.1. For a minor injury, provide first aid as soon as possible. If necessary, have another individual at the training location transport the injured person to a medical treatment facility. Do not let the injured person, or their escort, leave the training site with their weapons.
- 2.4.2.2. For a major injury, contact emergency services at (0505) 784-9111 or the Law Enforcement Desk at (0505) 784-5515. When making contact, relay the nature of the emergency, number of personnel affected, severity, and exact location. Provide first aid as soon as possible and keep the individual stable and alert until emergency personnel arrive. Send an individual to the training site entrance to meet, and direct emergency personnel. Do not let the injured person, or their escort, leave the training site with their weapons.
- 2.4.2.3. Consolidate all equipment, pyrotechnics and take accountability.
- 2.4.2.4. After assessing the risks involved, continue training only if practical.
- 2.4.3. Fire involving pyrotechnics, dye-marking cartridges, vehicles, or training materials.
- 2.4.3.1. Make no attempt to fight fires when pyrotechnics or dye-marking cartridges are engulfed in flames. If the fire does not involve dye-marking cartridges, the person nearest the on-hand fire extinguisher will attempt to battle the flames.
- 2.4.3.2. No matter the type of fire, evacuate all personnel at the training site to the pre-designated rally point, 300 feet from the dye-marking cartridges issue area.
- 2.4.3.3. Contact emergency services (0505) 784-9111, or the Law Enforcement Desk at (0505) 784-5515. When making contact, relay the nature of the emergency, hazard class and division of the dye-marking cartridges, pyrotechnics, severity, number of personnel effected, and exact location. Send an individual to the training site entrance to meet, and direct emergency personnel.
- 2.4.4. Misfires. A misfire is the failure of the propellant charge to ignite wholly or in part.
- 2.4.4.1. Misfires are removed by unit personnel as prescribed by applicable Field Manuals (FMs) and Technical Manual (TMs) for the weapons and ammunition being fired.
- 2.4.4.2. After removal from the weapon, place the projectile into the original packaging container, mark the container as containing a misfired projectile and keep separate from serviceable ammunition.
- 2.4.4.3. Turn the misfire into Munitions Storage Area (MSA) personnel for disposition.
- 2.4.5. Reporting. If personnel are injured or government property is damaged during training, a proper safety mishap report must be accomplished. The CRO must initiate the report on a DAF Form 978, *Supervisor Mishap Report*. However, in addition to the

standard reporting through an individual's chain of command, a notification must be made to the 51 FW Weapon Safety Office if the incident involves explosives.

2.4.6. Points of Contact.

2.4.6.1. Osan Base Fire Department: (0505) 784-4710.

2.4.6.2. Osan Base Law Enforcement Desk: (0505) 784-5515.

2.4.6.3. Osan Base Command Post: (0505) 784-7000.

2.4.6.4. 51 FW/SE Weapon Safety Office: (0505) 784-4804.

RYAN B. LEY, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DAFI 31-117, *Arming and Use of Force*. 28 January 2025

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

DAFMAN 31-131V1, *Combat Arms Training and Maintenance (CATM) Operations*, 17 June 2025

DAFMAN 31-131V2, *Small Arms and Light Weapons Qualification Programs*, 17 June 2025

DAFMAN 31-131V3, *Small Arms and Light Weapons Handling Procedures*, 1 April 2025

DESR6055.09\_DAFMAN91-201, *Explosives Safety Standards*, 18 June 2025

TO 11W2-9-4-11, *Technical Manual Operator's Manual for Close Combat Mission Capability Kit (CCMCK)*, 07 August 2023

***Adopted Forms***

AF Form 483, *Certificate of Competency*

DAF Form 797, *Job Qualification Standard Continuation/Command JQS*

DAF Form 847, *Recommendation for Change of Publication*

DAF Form 978, *Supervisor Mishap Report*

DAF Form 1098, *Special Task Certification and Recurring Training*

***Abbreviations and Acronyms***

**AB**—Air Base

**AFSFC**—Air Force Security Forces Center

**DAFI**—Department of Air Force Instruction

**AFRIMS**—Air Force Records Information Management System

**CCMCK**—Center Close Combat Mission Capability Kit

**CONOPS**—Concept on Operations

**CQB**—Close Quarters Battle

**CRO**—Chief Range Officers

**ECP**—Establish an Entry Control Point

**FM**—Field Manuals

**FW**—Fighter Wing

**IAW**—In Accordance With

**ICE**—Individual Combat Equipment

**LIMFACs**—Limiting Factors

**MOUNT**—Military Operations on Urban Terrain

**MSA**—Munitions Storage Area

**OIC**—Officer in Charge

**OPR**—Office of Primary Responsibility

**PPE**—Personal Protective Equipment

**RDS**—Records Disposition Schedule

**RSO**—Range Safety Officers

**SMC**—Shoot, Move, and Communicate

**TC**—Training Cadres

**TM**—Technical Manuals

**Attachment 2****SAFETY BRIEF (EXAMPLE)**

**A2.1. (RSO)** All weapons used in this training evolution will have the proper conversion kits installed. All weapons will be marked with brightly colored blue tape (if available) where it is easily visible and doesn't interfere with the functioning of the weapon.

**A2.2.** All magazines used in this evolution will be inspected by me (RSO) and marked with brightly colored blue tape (if available). All magazines not inspected and marked will be removed from the immediate training area. Ammunition will not be loaded into magazines until training is ready to commence. I will observe the loading of all magazines. No rounds of any kind will be carried in pockets at any time. I will inspect all weapons and magazines after this brief.

**A2.3.** All personnel will wear proper protective gear. Approved full-face helmet and throat protection is MANDATORY. This includes all participants and observers. Non-duty clothing must cover the arms, legs, and hands. Does everyone have the required safety equipment?

**A2.4.** I (RSO) am the only person who can grant permission for the training cycle to begin. When I am satisfied with the training area, proper clothing, protective equipment, and safety of the intended scenario, I will start the training cycle by announcing the range is 'Hot.' When the training cadre gives the order in the Unsafe Zone, point your weapons in a safe direction, charge it, re-holster/sling the weapon, and prepare for the scenario. At no time will a loaded weapon leave the training area. All standard weapon safety rules apply while on the range and involved in training.

**A2.5.** At no time shall any personnel remove any safety equipment until I have called the range 'Cold.' I will need full accountability of personnel, all weapons will be cleared, and a buddy-check performed before the range is certified 'Cold.'

**A2.6.** If you hear "CEASE FIRE," you will immediately stop training, point your weapon in a safe direction, and wait for further instructions. If anybody sees anything they think is unsafe, shout "CEASE FIRE." All training will stop until the condition is made safe. If you hear "CEASE FIRE," you must echo the command.

**A2.7.** Do not fire weapons within five feet of another individual.

**A2.8.** Do you have any questions?

**Attachment 3****EVOLUTION BRIEF (EXAMPLE)**

**A3.1. (Training Cadre)** We are about to conduct training using dye-markers and weapon conversion kits. Prior to entering the Semi-safe Zone, you were told by the RSO not to bring anything lethal onto the area with you. You all should have required protective equipment and gear. If you leave the Semi-safe Zone at any time, you must be re-inspected by the RSO.

**A3.2.** I will assign the students to teams and issue the scenario brief. Then, I will assign role players and support personnel, and issue them instructions. The role players, support personnel, and I will accompany the RSO to the entrance of the Safe Zone for a pre-training safety inspection by the RSO. I will brief you on your assigned duties after you have been inspected.

**A3.3.** All personnel must be inspected prior to entering the Safe Zone. When I complete the safety check, the RSO will make the range 'Hot.' Students will be issued their weapons and instructed to stand by. I will have students face in a safe direction, load, and make ready their weapons. I will then begin the scenario.

**A3.4.** Remember to keep alert and treat the scenario as real-world. Keep safety in mind at all times. Upon completing the scenario, you will hear the command to "CEASE FIRE." When instructed, personnel with weapons will face in a safe direction, clear, and sling their weapons. The RSO and I will inspect all cleared weapons. Once the RSO is satisfied all personnel, weapons, and equipment are accounted for and safe, he/she will call the range 'Cold' and give permission to remove masks. You may NOT remove your mask until the range is declared 'Cold.' All weapons will be returned to the RSO prior to leaving the Safe Zone. The debrief will be conducted at my discretion.

**A3.5.** Are there any questions?

**Attachment 4****SCENARIO EXECUTION CHECKLIST (EXAMPLE)**

- A4.1.** Give safety brief. **(RSO)**
- A4.2.** Conduct evolution brief. **(TC)**
- A4.3.** Safety inspection of **RSO**. **(TC)**
- A4.4.** Conduct safety inspection of **(TC)**, role-players, support personnel and vehicles (if applicable). **(RSO)**
- A4.5.** Brief role-players and support personnel on position for scenario. **(TC)**
- A4.6.** Prepare all weapons and issue un-loaded weapons to role-players if needed. **(RSO)**
- A4.7.** Bring students to entrance of Safe Zone for inspection. **(TC)**
- A4.8.** Conduct safety inspection of students and vehicles. **(RSO)**
- A4.9.** Conduct first safety check. Role-players and support personnel put masks on. Role-players' weapons are not loaded yet. When satisfied that everyone is briefed and wearing all necessary protective equipment and the training area is secure, **RSO** will call the range "**HOT.**" **(TC)**
- A4.10.** Have students face in a safe direction and load weapons. Begin scenario. **(TC)**
- A4.11.** **RSO** positions himself to monitor the scenario for safety violations. **RSO** is not an active participant in the scenario. However, if anyone sees any safety violation, shout "**CEASE FIRE.**" **(RSO)**
- A4.12.** **TC** monitors the scenario for safety issues and ensures training objectives are met. End the scenario by shouting "**CEASE FIRE, CEASE FIRE, and EVERYONE COME TO THE SOUND OF MY VOICE.**" All masks stay on. Check for injuries. **(TC)**
- A4.13.** Instruct all personnel with weapons to face in a safe direction and clear their weapons. Account for all personnel, weapons, and equipment. All items must be accounted for and checked by the **RSO** and **TC**. The **RSO** will call the range "**COLD.**" All personnel may then remove masks. **(RSO)**
- A4.14.** Conduct debrief/ after action review. **(TC)**
- A4.15.** Once all training is complete, account for all weapons, magazines, and equipment before personnel leave the Safe Zone. **(RSO and TC)**

## Attachment 5

### PERSONNEL SAFETY AND WEAPON EQUIPMENT

**A5.1.** The following safety equipment is approved and **MANDATORY** for wear when using dye-marking cartridges. All personnel in the training area must wear all mandatory safety equipment.

**Figure A5.1. CCMCK Protective mask - NSN: 8415-17-923-4534**



A5.1.1. Head and Face Protection.

A5.1.1.1. Standard Issue Gloves; leather, nomex, or winter.

A5.1.1.2. Single Layer Hearing Protection; foam inserts or under-the-helmet headset.

A5.1.1.3. Groin Protection.

A5.1.1.4. Full, single layer of clothing. Excessive clothing may detract from training realism.

**A5.2.** The following equipment is optional for wear when using dye-marking cartridges as needed to enhance scenario realism and offer further protection and comfort to students.

A5.2.1. Individual Combat Equipment (ICE).

A5.2.2. Elbow and Knee Pads.

**Table A5.1. Approved CCMCK Items**

Items Approved for Use and Purchase		
NSN	NOMENCLATURE	NOTES
6920-01-564-9657	Training Device, Fire Dye Marking Ammo: M16/M4	UTM
6920-01-564-9656	Training Device, Fire Dye Marking Ammo: M9	FX
6920-01-564-9658	Training Device, Fire Dye Marking Ammo: M11	FX
6920-01-564-9655	Training Device, Fire Dye Marking Ammo: M249	UTM
8415-99-359-9160	Mask, Cold Weather	
8464-01-328-8268	Goggles, Sun, Wind and Dust	
4240-01-612-0702	Helmet Mounted Training Facial Protection Systems: Eye Tactical CM121, black, CM121-43 (1G6Y3)	

4240-01-612-0696	Helmet Mounted Training Facial Protection Systems: Eye Tactical CM121, tan, CM121-44 (1G6Y3)	
4240-01-612-0690	Helmet Mounted Training Facial Protection Systems: Eye Tactical CM121, green, CM121-45 (1G6Y3)	
8415-17-923-4534	Helmet, Safety: Simunitions FX9003, black, 8971960 (0YAE9)	
8415-20-007-2548	Helmet, Safety: Simunitions FX9003, tan, 8971962 (0YAE9)	
8415-99-359-9160	Mask, Cold Weather (Standard CCMCK Face Mask), 69-0304 (KE396)	
<b>Approved Munitions (Centrally Procured - Cannot Local Purchase)</b>		
<b>NSN (DODIC)</b>	<b>NOMENCLATURE</b>	<b>NOTES</b>
1305-01-536-7722 (AB14)	9mm Red Marking Cartridge	
1305-01-536-7721 (AB13)	9mm Blue Marking Cartridge	
1305-01-537-1521 (AB16)	5.56 Blue Linked Marking Cartridge: M249 Only	
1305-01-537-1522 (AB17)	5.56 Red Linked Marking Cartridge: M249 Only	
1305-01-536-5822 (AB09)	5.56 Blue Marking Cartridge: M4/M16 Only	
1305-01-536-5827 (AB10)	5.56 Red Marking Cartridge: M4/M16 Only	
<b>Notes:</b>		
1. Cartridges from different manufacturers are not interchangeable and may not be used in other manufacturers' adapters.		
2. The AF is not procuring the yellow marking cartridges in either 5.56mm or 9mm; therefore, these rounds are not available to AF users.		

Attachment 6

DYE-MARKING CONVERSION KITS

A6.1. The following conversion kits are currently approved for use. FX and UTM brands are not interchangeable.

Figure A6.1. DYE-MARKING CONVERSION KITS:



Attachment 7

MAPS OF APPROVED OSAN AB CCMCK RANGES

Figure A7.1. Zone 1



Figure A7.2. Zone 2



Figure A7.3. Zone 3



Figure A7.4. Zone 4



Figure A7.5. Zone 5.

