



UNITED STATES MARINE CORPS
TRAINING AND EDUCATION COMMAND
1019 ELLIOT ROAD
QUANTICO, VIRGINIA 22134

IN REPLY REFER TO:
3570

C465

SEP 29 2010

TECOM SAFETY OF USE MEMORANDUM 2-10

Subj: SAFETY OF USE MEMORANDUM; SPECIAL EFFECTS SMALL ARMS MARKING SYSTEM (SESAMS) WITH 9MM AND 5.56MM MARKING CARTRIDGES

Ref: (a) MARADMIN 612/02
(b) MCO 3570.1B
(c) MCO 3500.27B
(d) NSWC, Crane Division, Safety Report dtd 5 Apr 2010 (NOTAL)

1. Purpose. Per reference (a), this Safety of Use Memorandum (SOUM) provides institutional range safety guidance for Marine Corps organizations training with the 9mm and/or the 5.56mm SESAMS marking cartridges with adapter kits for the M16A2, M16A4, AK-47, and M4A1 rifles, and the M9 and .45 cal. pistols. This SOUM amplifies guidance provided in reference (b) and supersedes guidance in SOUM 1-02.

2. Background

a. The marking cartridges (containing colored, soap-based dye), when used with the adapter kits, make an effective close-range, force-on-force training system. This system enhances the realism and training value of interactive scenario tactical training.

b. The information in this SOUM is based on information contained in equipment technical manuals, laboratory reports, and provided by subject matter experts.

3. Specifications and Safety Considerations

a. Improper use of the SESAMS training system may cause serious personal injury and/or damage to equipment.

b. Commanders will conduct an operational risk assessment in accordance with reference (c) prior to authorizing SESAMS use.

c. Installation commanders will ensure that SESAMS requirements are addressed as part of their officer-in-charge (OIC) and range safety officer (RSO) programs.

d. Installation commanders will publish standard operating procedures (SOP) to address the SESAMS training system.

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e. Installation SOP's will direct a 150 meter danger zone around all SESAMS training from which non-participating personnel are excluded.

f. The duties of the SESAMS RSO will be set forth in the installation SOP as outlined below. This listing is not considered to be all-inclusive.

(1) Before Firing:

(a) Ensure that ONLY USMC procured adapter kits are used by USMC organizations and personnel.

(b) Ensure that ONLY USMC procured marking cartridges, currently DODICs AA12, AA21, AB05 and AB06, are used by USMC organizations and personnel.

(c) Ensure that all weapons and adapter kits are maintained in strict compliance with reference (b).

(d) Account for and remove all live ammunition from the designated training area prior to commencement of SESAMS training exercises.

(e) Prohibit force-on-force SESAMS training at temperatures below 38 degrees Fahrenheit when training with DODICs AA12 and AA21. For DODICs AB05 and AB06, training with SESAMS is prohibited when temperatures are below 18 degrees Fahrenheit or above 104 degrees Fahrenheit.

CAUTION - The plastic of the protective mask becomes brittle in cold temperatures and could crack or break. Additionally, the plastic projectile that houses the soap-based dye begins to harden at temperatures below 38 degrees resulting in the round no longer having the "marking effect."

(f) Inspect all weapons, magazines, and ammunition pouches or pockets prior to commencement of SESAMS training exercises.

(g) Remove all weapon systems not modified to fire the SESAMS marking cartridge from the training area.

(h) Ensure all SESAMS capable magazines are clearly marked.

(i) Ensure that magazines are not filled until the SESAMS training evolution is ready to commence.

(j) Ensure that all personnel within the 150-meter danger zone wear the following MINIMUM protective equipment and clothing:

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1 Head/Face/Neck Protection

a The FX 8000, 9000, and 9003 Protective Face Masks are authorized for use. The FX 9000 and 9003 Protective Face Masks are specifically authorized for use with DODICs AB05 and AB06.

b The MCU-2A/P Chemical Biological Mask may be used for face and eye protection ONLY if the hard outer eye shields and the C2 canister are attached prior to use with the SESAMS training system.

c A balaclava, towel, or neck scarf will be worn so as not to expose any portion of the neck and throat. A commercially produced neck protector may also be used.

2 Body Protection

a The utility uniform, flight suit, or clothing capable of covering the arms and legs entirely will be worn.

b The use of groin protection and gloves is highly encouraged.

(k) Instruct all participants that "head shots" are not authorized.

(l) Ensure that the 150-meter danger zone is clearly marked.

(2) During Firing:

(a) Ensure that qualified medical personnel and appropriate medical equipment are available during all SESAMS training exercises (same as live-fire exercises).

(b) Control access to the 150-meter danger zone.

(c) Ensure all personnel within the 150-meter danger zone wear appropriate face, eye, ear, and neck protection.

(d) Ensure that a **MINIMUM** safe engagement distance from the muzzle of 2 meters (7 feet) for the 9mm and 4 meters (14 feet) for the 5.56mm system is established and maintained, per reference (d).

CAUTION - Extreme care must be taken to ensure the minimum safe distance is maintained when using various weapons (different lengths) during the same training evolution.

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(3) After Firing:

(a) Inspect all weapons, magazines, and ammunition pouches or pockets immediately following SESAMS training exercises.

(b) Ensure all weapons are returned to their operational state. A function check will be performed.

(c) Account for and return all unused ammunition to the supporting activity ammunition supply point with original packing materials.

(d) Account for and return all weapons to the appropriate location in accordance with current applicable directives.

(e) Account for and return all SESAMS adapter kits to the appropriate location in accordance with current applicable directives.

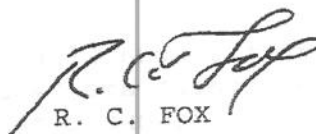
(f) Ensure that the SESAMS ammunition, and any of its components, is not removed from the training environment by unauthorized personnel.

4. Responsibilities. The installation commander is ultimately responsible for the safety of all training conducted aboard the installation.

5. Applicability. This SOUM is applicable to the Total Force.

6. Cancellation. This SOUM will remain in effect until it is canceled or updated.

7. Point of Contact. RTAM Division point of contact is Mr. E. R. Sobieranski (Head, Range Safety and Design Branch) (703)784-4480 (DSN 278).


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