

**FIRING/NONFIRING DATA**

*For use of this form see USAIC Regulation 350-19, the proponent agency is DPTMS*

<b>TO:</b> Chief, Range Division, Directorate of Plans, Training, Mobilization and Security Fort Benning, GA 31905	<b>Date:</b> FEBRUARY 11, 2015      Log # <i>12-10-14</i> <b>Range:</b> MALONE 01 <b>Title:</b> HAND GRENADE TRAINING <b>Problem No:</b>
<b>THRU:</b> S-3, 3-16TH CAV, Fort Benning, GA. 31905	<b>FROM:</b> A TRP, 3-16th CAV, Fort Benning, GA. 31905

**SECTION I, TYPE OF TRAINING**

a. Live Fire     
  b. Non-live Fire     
 CP/Controller Coordinates: GA 0116 8931

**SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS**

Coordinates	Type	Model/DODAC	Size of Charges
Mock Bay Area Demonstration GA 0100 8924 Bleacher GA 0150 8924	Grenade Incendiary TH3, M14, Inert grenade smoke M83, M18 (R,Y,V,G)	G900, G901, G982, G940, G950, G945, G955, G959	
Distance & Accuracy GA 0900 8915 to GA0100 8931	Grenade Practice M69 Grenade Fuse Practice	G918, G878	
Bunker Training/6 Station Upper GA0116 8917/ Lower GA 0132 8933	Grenade Practice M69 Grenade Fuse Practice	G918, G878	

**SECTION III, WEAPONS/AMMUNITION REQUESTED**

Coordinates of Weapons Position	Type Weapon/Model Number	Type Ammunition	Left Limit	Right Limit
Bunker Training/6 Station Training Upper/Lower Course	M16A4, M4	A080 5.56mm Blank (upon using Unit Request)	N/A	N/A
Live Fire Exercise (6 Bays, 1 Pit Per Bay) GA 0106 8966-0113 8958	Grenade Fragmentation M67	Grenade Fragmentation M67 G811	05 Deg	95 Deg

**SECTION IV, LIVE FIRE EXERCISES Attach the following:**

**SECTION V, NON-LIVE FIRE TRAINING**

<input checked="" type="checkbox"/> Scenario of training to be conducted: <input checked="" type="checkbox"/> Sketch of area: <input checked="" type="checkbox"/> Risk Assessment: <input type="checkbox"/> Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired:	Training area(s) to be occupied:  <input type="checkbox"/> Scenario of training to be conducted: <input type="checkbox"/> Sketch of area(s) to be occupied: <input type="checkbox"/> Risk Assessment:
Name/rank of requesting officer: Schoffner, Sean C. MSG 	Name/rank of Major Unit S3/Commander: Melton, Marcus H. MAJ 

**SECTION VI, FOR RANGE DIVISION USE**

**DATE:** *10 FEB 2015*

<b>TO:</b> S-3, 3-16th CAV, Fort Benning, GA. 31905	<b>FROM:</b> Range Division, Directorate of Plans, Training, Mobilization and Security Fort Benning, GA 31905
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a. Roadblocks to be closed: b. Road(s) to be closed/road barrier locations: c. Remarks: d. This approval expires: <i>9 FEB 17</i>	SEE SCENARIO, PARAGRAPH 3-Q   
Chief, Range Division Directorate of Plans, Training, Mobilization and Security	



DEPARTMENT OF THE ARMY  
ASSAULT TROOP, 3<sup>RD</sup> SQUADRON 16<sup>TH</sup> CALVARY REGIMENT  
316<sup>TH</sup> CALVARY BRIGADE  
10195 13<sup>TH</sup> ARMORED REGIMENT ROAD - BUILDING 5117  
FORT BENNING, GEORGIA 31905

REPLY TO  
ATTENTION OF

ATZK-SBA-A

05 December 2014

MEMORANDUM FOR RECORD

SUBJECT: Malone One Range Scenario

**1. Main Body**

- A. Range is opened thru range operations via radio communication.
- B. Using unit detail arrives prior to main body.
- C. Detail conducts range setup in preparation for the arrival of the main body.
- D. Main body arrives and organizes in staging area; trainees are inventoried and bee sting, hot/cold weather injuries are identified.
- E. Soldiers/Trainees are moved to the Mock Bay bleachers.
- F. Soldiers/Trainees are given a Range Orientation/Safety Brief in compliance with the DRAW DD Form 2977.
- G. Soldiers/Trainees are given a demonstration on the different types of grenades, including Smoke and Incendiary. The grenades are initiated by Range Cadre only. Once the Cadre has initiated the smoke grenades, the Soldiers/Trainees are instructed to stand up and face the rear of the bleachers. The Soldiers/Trainees are instructed to not turn around to look at the Incendiary grenade. There is a pre-positioned Cadre member approximately 75 meters behind the Trainees. That Cadre member yells "Burning" and then initiates the Incendiary grenade. Once it has completely burned out, the Soldiers/Trainees file by platoon to view the capability of the grenade on their way to receive Pre Live Ordinance Training at the Mock Bay area. (See sketches Phase one and two).

**2. Pre Live Ordinance Training**

- A. All Soldiers/Trainees receive hands on training on the proper left/right hand grip, safe handling techniques, and how to properly store the hand grenades.
- B. All Soldiers/Trainees are taught "Distance and Accuracy" prior to Mock Bay training.
- C. All Soldiers/Trainees are taught "Mock Bay" prior to throwing live Grenades.
- D. Soldiers/Trainees must pass both Distance and Accuracy and Mock Bay training before moving on to Live Ordinance Training. (See sketch Phase three). No exceptions.

**3. Live Ordinance Training**

- A. Soldiers/Trainees will be given a period of instruction at the "Live Bay" on what is expected of them by the Ground Safety.
- B. Sequence of events.
  - 1) Soldier/Trainee exits the Viewing/Ready Room and is issued two live hand grenades. (Grenades are held visible as Soldiers/Trainees proceed to their throwing pit).

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SUBJECT: Malone One Range Scenario

- 2) The Pit NCO Safety assumes control of the Soldier/Trainee.
  - 3) Utilizing the "Fist Over" hold. Once the Soldier/Trainee enters the pit they hand the non throwing grenade to the "Pit NCO". The "Pit NCO" secures the non throwing grenade on his hand grenade Pouch. If the first grenade is a dud, the "Pit NCO" will follow dud procedures.
  - C. The tower will direct all activities on the firing line. After Soldiers/Trainees exit the live bay they go back to viewing/ready room. The RSO and drill sergeants get accountability of each Soldier/Trainee after every firing order. After half of the unit has thrown, the Tower will cease fire and allow them to return to the upper or lower course to conduct Post Live Ordinance Training. After the unit has made their way to the upper/lower course, Live Bay will continue training. (See sketch Phase 4).
- 4. Post Live Ordinance Training**
- A. When directed, the Soldiers/Trainees will return to the upper training course for the bunker class.
  - B. Soldiers/Trainees will then negotiate the Qualification Course (Upper Course), which is run by their Drill Sergeants (M16s will be utilized during this Buddy Team event) No ammo will be issued for the M16's during this portion of training.
  - C. All troops, weapons, equipment, ammunition and dunnage will be accounted for.
  - D. Soldiers/Trainees receive a brass and ammo check by their chain of command. (See sketch Phase 5).
  - E. Leveling of the range filling in holes with sand and all other range maintenance is conducted by Range Operations.
- 5. Ammunition**
- A. Live ammunition is stored and guarded at the Live Bay area and is segregated by lot number.
  - B. Practice ammo with fuses are stored in the Practice Ammo Point. (Ref. sketch, bldg #2)
  - C. Only Cadre will control the ammo point.
- 6. Safety**
- A. All training will follow the sequence above. All movement will be controlled based on unit size and training pace. Access to training areas will be dictated by ability to command and control as well as Safety concerns. Soldiers/Trainees will meet all prerequisites prior to Live Bay Training.
  - B. Field Litter Ambulance (FLA) with medics will be on-site at all times.
  - C. For all injuries resulting in threats to life, limb, or eyesight, on-sight FLAs are the first responders. Range Operations and E 911 will be notified accordingly.
  - D. Range Operations, Home and Using units will be notified of any safety violation, incident, or injuries.
  - E. Check OSUT/BCTB unit for:
    - 1: Range Request
    - 2: Ice sheets

ATZK-SBA-A

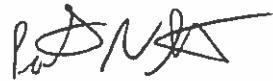
SUBJECT: Malone One Range Scenario

- 3: Wet bulb
  - 4: Hearing and eye protection
  - 5: Unit Commander's Risk Assessment.
- F. Ensure that using unit enforces the No Upper Body PT rule the day off hand grenade training.
  - G. All personnel, to include using unit cadre and soldiers/trainees, will receive a safety briefing prior to any training taking place.
  - H. All personnel will wear Kevlar/ACH helmet, Body Armor vest, hearing protection and eye protection.
  - I. All Soldiers/Trainees will receive instruction on proper Grenade/Fusing techniques as well as proper usage while at Malone 1. Soldiers/Trainees will be closely monitored while fusing the training grenades. (Leather working gloves will be use during fusing process and expended shell recovery).
  - J. All Soldiers/Trainees must complete Distance & Accuracy and Mock Bay training in order to throw live.
  - K. All Mock Bay failures will not be allowed to throw live. All failures will be determined by the Range NCOIC and the Range Safety Officer.
  - L. All Pit NCOs are certified by the company commander and are competent in the "DROP PROCEDURES" and FAILURE TO THROW PROCEDURES. (See SOP for details).
  - M. All Commanders and personnel that are part of the Soldiers/Trainees chain of command that want to go into the pits to observe Trainees throwing live hand grenades will be in the same uniform as the Soldiers/Trainees and will use the far left or right sub pits of any bay, and prior to going to the pits must acknowledge that they understand the "Drop Procedures". Example: Bay #1, pit #1 will have the observer on the left side (sub pit) and pit #2 will have the observer on the right side (sub pit) of the Soldier/Trainee throwing the live grenade. This also applies to bay #2 and bay #3. All observers will proceed with the safety and Soldier/Trainee to the appropriate bay/pits and will not depart until all live grenade training is complete for all bays.
  - N. Any Bay (consisting of two pits) adjacent to a DUD grenade that is not separated by an earth berm will not be utilized until the DUD grenade has been cleared by EOD. If, the dud grenade is in bay #2 (either pit), then all live grenade training will cease. The rule applies to bay #2 only. Live grenade training is allowed in bays #2 and #3 if a dud grenade is in bay #1 and allowed in bays #1 and #2 if a dud grenade is in bay #3.
  - O. All Risk Management Worksheet controls will be observed. Violations of any will be brought to the attention of the NCOIC, RSO, Range Cadre and DS cadre.
  - P. All fire extinguishers will be operational and in place.
  - Q. Prior to the Live Fire portion a Guard will be posted at grid (GA01142 89390), to control personnel from entering the Live Fire area of the grenade range.
  - R. Dud Procedures:
    1. Activities in that bay will cease.
    2. All throwers and cadre in that bay will wait in their throwing pit for 5 minutes before exiting to shelter in a covered position.
    3. Range Operations and EOD will be notified immediately.

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SUBJECT: Malone One Range Scenario

4. Adjacent Bays may continue training as long as there is a berm separation from the dud unless the DUD grenade is BAY #2. See paragraph 3-N above.
  5. Once EOD arrives all bays will cease activities until the dud has been neutralized.
  - S. Live grenades will not be thrown into standing water, deep snow, or dense vegetation.
7. The point of contact for this memorandum is SFC Valdez, Daniel, the Master Trainer for Malone 1, at 706-626-6509.



PATRICK M. WHITE  
CPT, IN  
Commanding



# RECORD OF ENVIRONMENTAL CONSIDERATION (REC)



**Date Submitted:** 9/16/2014

**EMD Number:** 1426005      **Project#:** Unknown      **Project Title:** EMPLOY LIVE HAND GRENADES

**Description of proposed action:**

DURING THIS BLOCK OF INSTRUCTION SOLDIERS WILL BE REQUIRED TO EMPLOY LIVE HAND GRENADES, IDENTIFICATION, CONDUCT QUALIFICATION COURSE.

**Project Location:** MALONE 01      **Amount, Description, Location of Disturbance/Digging:** None

**Number of Personnel:** 220      **Type of Ammunition:** LIVE, FUSE PRACTICE GRENADE, SMOKE & 5.56 MM Live and Blank      **Number/Types of Trees:** None

**Size of Project Area:** N/A      **Duration of Action:** Start: 10/1/2014      Stop: 9/30/2015

**Proponent:** paul.joseph      706-626-6509      **Organization/Unit:** 316th CRgt

**Number/Types of Vehicles:**  
None

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**DECISION:** Concur with conditions

This Action is adequately covered in the Existing EA titled: 'Ongoing Mission and siting Activities, USAIC, FT. Benning, GA.'

(NA): Training involving LIVE FIRE and tracked vehicles has NO CATEX -- "Ongoing Mission and Siting Activities, USAIC, Ft. Benning, GA."  
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## REC APPROVED THROUGH 30 SEPTEMBER, 2015

**Cultural Resources - Archeological**      None      Edward Howard (706 545 1898), 9/25/2014

**Natural Resources - RCW**      None      Michael Barron (706 544 7080), 9/19/2014

**Hazardous Materials/Waste**      Conditions:      Carlos Arlaschoa (706 545 1857), 9/18/2014

**Considerations for Training Exercises:**

Defective, misfired, or otherwise unserviceable munitions must be managed IAW/MCOE Reg.350-19-5-10, Para 9-2 (Proper management of Misfired munitions). All excess, munitions must be returned to the Ammunition Supply Point after the field exercise is completed. Rubbish, empty containers and other waste (including used smoke/C2 canisters) should be removed from the training area. A dud shall not be removed from the range; it will be marked, called into range control and will be properly disposed of by EOD personnel IAW/MCOE Reg. 350-19, 23 Jul 2010.

Any wastes generated must be evaluated for their hazardous characteristics and disposed of in accordance with all Federal, State and Fort Benning Hazardous Waste Regulations. Appropriate precautions must be taken to prevent hazardous material spills. Adequate quantities of spill response supplies must be on hand while work is being performed. If a spill occurs use notification procedures as outlined in the Fort Benning Hazardous Waste Management Plan Chapter 14. Contain and clean up any spill according to guidance provided by the Environmental Programs Management Branch. EPMB provides an 8 hours course covering Hazardous Materials/Waste Management, Hazardous Waste Minimization, Safety, and Pollution Prevention.

EMD Number: 1426005

IJO# Unknown

Project Title: EMPLOY LIVE HAND GRENADES

Noise

Conditions:

Ellis Leeder (706 545 2400), 9/17/2014

This is training operations request for training. If there is any operational noise complaints received, the Environmental Management Division Installation Operational Noise Monitoring Program (IONMP) and or Public Affairs Office (PAO) programs will investigate and then recommending operational noise mitigation actions to the appropriate personnel for the training actions. This 144r must be present at the training site when occupying compartment or ranges.

GWA - Training

Conditions:

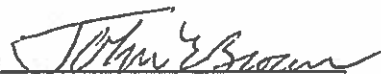
Leah Ropski (706 626 0492), 9/17/2014

Environmental Review: Caution within training areas and motor pools should be taken to protect all nearby waterways (including perennial, intermittent streams and wetlands); as well as ground surfaces and any other sensitive areas in the vicinity of the training areas. Potential spills/releases from this activity that may occur before and/or during the FTX include: 1. Discharge and/or improperly disposal of oil or hazardous substances into or upon land, water, or into ground water areas from storage, handling and/or transportation of hazardous materials/waste; 2. Vehicle/equipment/generators leaks; 3. Fuel loading/unloading/refueling operations; 4. Field mess facilities/equipment/operations, and/or 5. Ammunitions /explosives (as applicable, before and/or during the FTX).

General SPCC Requirements: Ensure all hazardous materials are properly storage to prevent spill/discharges, to meet safety requirements for storage, and that containers are not exposed to the weather. Have adequate spill response supplies available during exercise for any spills that may likely occur. Use drip pans under vehicles and provide secondary containment for any fueling activities and hazardous material/waste storage. Locate all refueling operations and storage of hazardous materials/waste away from waterways and sensitive areas. See attached section on prevention procedures and CHECKlist (Example Unit/Activity SOP for Training and Deployment) to be used during training exercise to comply with SPCC plan requirements. Ensure all wastewater from field mess equipment/operations particularly those involving oil/grease are collected and dispose properly. Do not discharge any wastewater into storm drains or dispose of oil/grease waste directly into land.

General ISCP Requirements: In the event of a spill/dischage -- notify Range Control by radio or call 544-6291, and they will notify E-911 for Fire Department/HAZMAT Team assistance and/or notification of the EMD office (Spill Beeper 706-317-6584). As appropriate, and if personnel are trained -- REACT to minimize spill damages. Submit a spill report to the EPMB Spill Program Manager (use Spill Response Report attached). All spills reaching navigable water must be reported immediately. The unit is responsible for the final cleanup of any spill during this exercise. Coordination with this office is required for clearance of the site.

Signature



John E Brown

NEPA Program Manager

Date

29 SEP 2014

Signature



Patrick R. Chauvey

EPMB Chief

Date

19 SEP 2014

**TRANSMITTAL, ACTION AND CONTROL**

For use of this form see MCoE Memo 25-52; the proponent is SGS

1. SGS LOG:	2. IN SGS:	3. OUT SGS:	4. DATE PREPARED: 7 Jan 2015
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5. SUBJECT:  
Deliberate Risk Assessment Worksheet/Malone 1 Range

6. ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER: Schoffner, Sean C. MSG, S-3 NCOIC <i>626-P033</i>	7. DIRECTOR'S/COMMANDER'S SIGNATURE: Melton, Marcus H. Maj. S-3 <i>[Signature]</i>
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SIGNATURE                                   APPROVAL                                   INFORMATION

SGS     DCofS     GC CSM     USAIS CSM     USAARMS CSM     MCoE CSM     CDID  
 GC     CIG     CofS     SA     DCG-NG     Comdt, IN School     Comdt, AR School     CG

1. PURPOSE: 3-16th CAV request review and approval of the Deliberate Risk Assessment Worksheet for Log# 12-10-14

2. RECOMMENDATION: Post Safety Office reviews and approves the Deliberate Risk Assessment Worksheet and initials the FB25  
-52-1-E-R

3. DISCUSSION: 1

a. 3-16th is requesting the use of packet # 12-10-14, Malone 1.

b. Unit understands that the Deliberate Risk Assessment Worksheet must be maintained and on hand while conducting Grenade Training on Malone 1.

c. Unit will return the packet/Deliberate Risk Assessment Worksheet back to Range Operations for the final signature of approval by the Range Operations Chief. (Brad Tesch)

4. THIS DOCUMENT IS AUTHORED BY:

8. COORDINATION/APPROVAL

S:

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
Range Ops	<i>Concur</i>	<i>Boys on 7 Jan 15</i>			
Post Safety	<i>Concur w/c</i>	<i>A. Eden 12 JAN 15</i>			
<i>Rdsafety</i>	<i>CONCUR</i>	<i>Al Branch 15 Jan 15</i>			

STAFF REMARKS: (Command Group Use Only)	APPROVAL AUTHORITY APPROVED: _____ DISAPPROVED: _____ NOTED: _____
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**DELIBERATE RISK ASSESSMENT WORKSHEET**

<b>1. MISSION/TASK DESCRIPTION</b>  Hand Grenades, Malone I	<b>2. DATE (DD/MM/YYYY)</b>  02/02/2015-01/02/2016
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<b>3. PREPARED BY</b>		
<b>a. Name (Last, First Middle Initial)</b>  White, Patrick M.	<b>b. Rank/Grade</b>  O3/CPT	<b>c. Duty Title/Position</b>  Troop Commander

<b>d. Unit</b>  A Trp 3-16 CAV	<b>e. Work Email</b>  patrick.m.white2.mil@mail.mil	<b>f. Telephone (DSN/Commercial (Include Area Code))</b>  706-626-6611
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<b>g. UIC/CIN (as required)</b>  WIDXAS	<b>h. Training Support/Lesson Plan or OPORD (as required)</b>  OSUT/ BCT/ PP	<b>i. Signature of Preparer</b>  WHITE.PATRICK.MEN DELSON.1149467382
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Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions  
(4) Implement controls (5) Supervise and evaluate (Step numbers not equal to numbered items on form)

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	8. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> <input type="checkbox"/>	Employ Hand Grenades	Injury or Death due to dropped or mishandled Hand Grenade	EH	1. Live bay (pit) NCO will direct and control the Soldier in the pit with him and maintain positive visual observation and control of the live grenades the entire time. Pit NCO will each rehearse the following actions prior to the conduct of live bay. 2. If live Hand Grenade is dropped inside the pit at Live Bay, then Pit NCO and Soldier execute the evacuation drill as rehearsed in the mock bay, exiting the pit over the back wall. The pit NCO will physically ensure the soldier gets over the back wall. 3. If live Hand Grenade is dropped off Back Wall at Live Bay, then Pit NCO and Soldier execute safety drill as rehearsed in the mock bay. Pit NCO and Soldier will assume the prone position parallel to the back wall. Pit NCO will ensure the Soldier's head is below the top of the back wall.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief  Who: NCOIC; RSO; Range Cadre; Live Bay NCO	H

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Soldier Freezes After Arming the Grenade	EH	Pit NCO will reinforce the command "throw grenade". Pit NCO will then grasp Soldier's hand and apply pressure to the safety lever. Pit NCO will walk Soldier forward and extend his hand over the front wall. The pit NCO ensures the Soldier's head is below the front wall and lets the Soldier drop the grenade in front of the live bay pit.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: Pit NCO	H
	Employ Hand Grenades	Soldier Cooks-Off Grenade	EH	Pit NCO continues to reinforce the command "Throw, Throw, Throw" pit NCO will not attempt to grab the grenade due to the risk that the Soldier may drop it in the live bay pit.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: Pit NCO	H
	Employ Hand Grenades	Soldier 'Milks' Grenade Prior to Throwing	EH	If Pit NCO hears metallic click (indicating the grenade is armed), he will reinforce the command "Throw Grenade". If he does not hear a click, he will grab the Soldier's hand and apply pressure to the safety lever.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: Pit NCO	H

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -  <input type="checkbox"/> + <input type="checkbox"/> -  <input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Premature Detonation at Grenade Issue Point	EH	Ammunition NCO maintains no more than two cases (60 grenades) at the issue point at any one time.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief  Who: Ammunition NCO	H
	Employ Hand Grenades	Soldier Being Hit by Fragments from the M67 Fragmentation Grenades	EH	1. RSO ensures all Soldiers are wearing IOTV with plates while forward of the safety barrier and while throwing a live M67 fragmentation grenade. 2. NCOIC ensures medic with aid bag is in the tower during live grenade training and the ambulance is next to the live bay entrance. 3. RSO and all instructors ensure helmets are worn at all times. 4. Soldiers will be under overhead cover at all times except when they are throwing the grenades. 5. Instructors will control Soldiers under overhead cover.	How: 1. IAW MCoE Range and Terrain Regulation 350-19. 2. IAW AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat. 3. IAW Tradoc Reg. 350-29 Prevention of Heat and Cold Casualties. 4. IAW MCOE 40-14, Standardized Markings of Soldiers at Risk. 5. 3-16 CAV policies on range operation. 6. Range safety brief to leaders.  Who: NCOIC; RSO, Cadre	H
	Employ Hand Grenades	Soldier watches Grenade after thrown	H	Pit NCO will physically pull the Soldier down behind the front wall of the live bay.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief  Who: Pit NCO	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px; text-align: center;">+</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px; text-align: center;">-</div>	Employ Hand Grenades	Heat	H	<p>1. The training unit will monitor wet bulb for heat category. Previous heat injuries will be monitored through the buddy system, training company cadre, and instructors. Update daily risk assessment if unit road marches to training.</p> <p>2. Heat categories will be enforced as follows:  heat cat index, Temp., work/rest cycle and water consumption per hour for easy, moderate, or hard work.</p> <p>1: 78-81.9 NL-1/2 NL-3/4, 40/20-3/4  2: 82-84.9 NL-1/2 50/10-3/4, 30/30-1  3: 85-87.9 NL-3/4 40/20-3/4, 30/30-1  4: 88-89.9 NL-3/4 30/30-3/4, 20/40-1  5: &gt;90 50/10-1, 20/40-1 10/50-1</p> <p><b>EASY WORK</b></p> <ol style="list-style-type: none"> <li>1. Weapon maintenance</li> <li>2. Walking hard surface at 2.5 mph, 30 lb load</li> <li>3. Manual of arms</li> <li>4. Marksmanship training</li> </ol> <p><b>MODERATE WORK</b></p> <ol style="list-style-type: none"> <li>1. Walking loose sand at 2.5 mph, no load</li> <li>2. Walking hard surface at 3.5 mph, less than 40 lb load</li> <li>3. Calisthenics</li> <li>4. Pntrolling</li> <li>5. Individual movement techniques, i.e. low crawl, high crawl</li> <li>6. Defensive position construction</li> <li>7. Field assaults</li> </ol> <p><b>HARD WORK</b></p> <ol style="list-style-type: none"> <li>1. Walking hard surface at 3.5 mph, more than 40 lb load.</li> <li>2. Walking loose sand at 2.5 mph with load.</li> <li>3. Daily water intake should not exceed 12 qts.</li> <li>4. Evacuate heat casualties in accordance with serious incident guidelines/post requirements.</li> <li>5. Identify previous heat injuries.</li> <li>6. Monitor eating of meals and record water consumption with card or cord system.</li> </ol>	<p><b>How:</b>  MCOE Range and Terrain Regulation 350-19  MCOE PM 385-6-1  AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat  3-16 CAV SQN policies on range operation  Range safety brief to leaders  TRADOC Reg 350-29</p> <p><b>Who:</b>  NCOIC; RSO, Training Unit Cadre</p>	M

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Cold	H	<p>1. All Soldiers with previous cold injuries will be identified and closely monitored through marking, the buddy system, company cadre, and instructors.</p> <p>2. Immersion foot: cause: prolonged immersion in cold water, usually in excess of 12 hours at temperatures below 50 degrees Fahrenheit.</p> <p>3. Trench foot: cause: exposure to wetness and cold between and up to 50 degrees Fahrenheit, lasting hours to several days.</p> <p>4. Frost bite: cause: exposure to cold at temperatures of freezing or below, for minutes to several hours.</p> <p>5. Hypothermia: cause: heat loss exceeding body's heat production resulting in body temperature of 95 degrees Fahrenheit or lower.</p> <p>6. First aid measures: remove wet clothing, rest affected part and re-warm it promptly to room temperature (except in the case of frostbite, when thawing should only be attempted by medical personnel) treat injuries and evacuate immediately.</p> <p>7. Ensure all soldiers have proper cold weather clothing.</p> <p>8. Monitor wind chill factor:            CAT I: +32 to +1 F            CAT II: 0 to -5 F            CAT III: -6 to -10 F            CAT IV: Below -10 F</p>	<p>How:            MCOE Range and Terrain Regulation 350-19            MCOE PM 385-6-1            AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat            3-16 CAV SQN policies on range operation            Range safety brief to leaders            TRADOC Reg 350-29</p> <p>Who:            NCOIC, RSO, Training Unit Cadre</p>	M

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px auto; display: flex; align-items: center; justify-content: center;">+</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px auto; display: flex; align-items: center; justify-content: center;">-</div>	Employ Hand Grenades	Range/General Situational Awareness (cont.)	H	<p>The range Non-Commissioned officer In Charge (NCOIC) and Range Safety Officer (RSO) will:</p> <ol style="list-style-type: none"> <li>1. Read and review the Risk Management Worksheet.</li> <li>2. Ensure Medics and a dedicated evacuation vehicle are available.</li> <li>3. Consult with training company cadre to identify problem Soldiers (suicidal or homicidal intent or gestures, or demonstrating serious emotional problems) and individually supervise high risk Soldiers.</li> <li>4. Identify soldiers with medical problems having the potential to impact training to include minor illnesses, allergies, previous heat and/or cold weather injuries, or environmental sensitivities.</li> <li>5. Review evacuation procedures and reporting procedures for serious incidents. Plan to evacuate Soldiers with allergic reactions, anyone within 25 meters of a lightning strike, cold weather/heat injuries, snakebite, or anyone showing symptoms beyond the range NCOIC's experience and the medic's ability to treat. The NCOIC/RSO will direct an air MEDEVAC when the danger of loss of life, limb, or eyesight exists.</li> <li>6. Ascertain what type of training the unit has done for the previous day and that morning, to ensure that it will not impact Soldiers ability to properly throw Hand Grenades.</li> <li>7. Conduct daily risk assessment in consultation with training company cadre representatives.</li> </ol>	<p>How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1, AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders MCOE Reg 40-14, Safety Brief to Soldiers</p> <hr/> <p>Who: NCOIC; RSO</p>	M

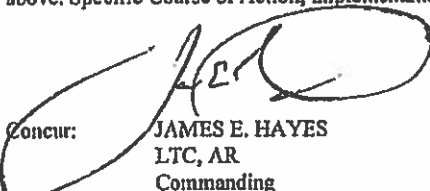
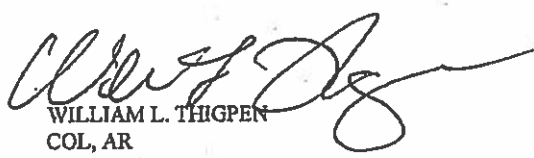
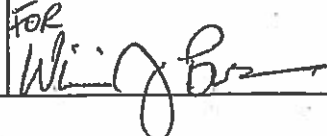
	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Eye/Hearing Loss	H	<p>NCOIC or RSO will:</p> <ol style="list-style-type: none"> <li>1. Brief Soldiers on the dangers of grenades for hearing and eyesight loss.</li> <li>2. Ensure Soldiers are wearing eye and ear protection during range operation.</li> <li>3. Ensure extra earplugs are available.</li> <li>4. Instructor will: ensure that all personnel are wearing hearing protection during live bay, to include cadre.</li> </ol> <p>Medics will:</p> <ol style="list-style-type: none"> <li>A) Ensure that the aid bag is present and has all required equipment.</li> <li>B) Request and replenish any deficiencies prior to the start of training.</li> </ol>	<p>How:</p> <p>MCOE Range and Terrain Regulation 350-19  MCOE PM 385-6-1  AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat  3-16 CAV SQN policies on range operation  Range safety brief to leaders  AR 40-501</p> <p>Who:</p> <p>NCOIC, RSO, and Live Bay NCO</p>	M
	<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Soldier Bitten/Stung by Snakes or Insects	M	<p>Range NCOIC or RSO will:</p> <ol style="list-style-type: none"> <li>1. Inform the Soldiers of the various types of wildlife that are hazardous and warn them not to handle or harass wildlife during training.</li> <li>2. Ensure personnel with medical problems such as allergies to insect bites are identified and marked.</li> <li>3. Ensure sting (anaphylactic) kit is in CLS bag.</li> </ol>	<p>How:</p> <p>MCOE Range and Terrain Regulation 350-19  MCOE PM 385-6-1  AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat  3-16 CAV SQN policies on range operation  Range safety brief to leaders</p> <p>Who:</p> <p>NCOIC; RSO</p>

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Soldier Struck by Lightning	M	Range NCOIC or RSO will: Range NCOIC or RSO will: 1. Monitor radio net at all times for severe weather/lightning advisory warnings. 2. Suspend all training during electrical storms. 3. Notify range control, battalion headquarters (HQ), and company HQ of any incident. 4. Cadre will control the students. 5. Brief students on electrical storm plan and point out location to ground gear and the designated lightning protection area to move to in the event of lightning. 6. Inform training unit cadre to implement the severe weather plan. 7. Ensure students ground their individual equipment and don their wet-weather gear. 8. Ensure all students are spread 5-10 meters apart in an open area or in the designated lightning protection area until the storm clears or the training unit departs.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders TRADOC Reg 350-6 TRADOC Reg 385-2  Who: NCOIC, RSO	L
	Employ Hand Grenades	Minor Body Injury (Cuts or Falls)	M	Range NCOIC or RSO will: 1. Give safety briefing alerting Soldiers to tripping hazards: rocks, roots, branches, fallen trees, and creek beds. 2. Instructors will monitor Soldier movement and alert Soldiers to possible hazards.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders  Who: NCOIC; RSO	L



	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Employ Hand Grenades	Demonstration of an M14 Incendiary Grenade Could Burn Retina in Eyes	M	Range NCOIC or RSO will: Brief Soldiers that they will not look directly at the grenade during demonstration. Instructors and training unit cadre will: Monitor Soldiers to ensure they do not look at the grenade.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: NCOIC; RSO, Cadre	L
+ -	Employ Hand Grenades	Soldier Misses the Bunker while Using the Cook-Off Technique: Fuse Residue from Practice Fuse Could hit the Soldier.	M	Training Unit Cadre will: 1. Monitor Soldiers to ensure they do not look at the grenade. 2. Teach and demonstrate cook-off techniques to the Soldiers. 3. Ensure the cook-off is only used with practice fuses. 4. Ensure practice and live grenades are separated (separate drop and storage area 5. Ensure Soldiers turn and face the rear of the bunker to keep fragments from hitting them in the face.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: NCOIC; RSO, Cadre	L
+ -	Employ Hand Grenades	Burning/cutting Hands on Expended Practice Grenades	M	Range NCOIC or RSO will: 1. Brief all instructors on the safety procedures to be followed on the Hand Grenade Qualification Course (HGQC). 2. Ensure Soldiers on detail are wearing eye protection and leather gloves while retrieving grenades. 3. Ensure Soldiers on detail are not retrieving grenades unless instructed by the cadre.	How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief Who: NCOIC; RSO, Cadre	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	Employ Hand Grenades	Ammunition & Pyrotechnics	M	<p>Ammunition NCO will ensure:</p> <ol style="list-style-type: none"> <li>1. Soldiers involved in fusing/refusing practice grenades understand not to touch the blasting cap due to static electricity.</li> <li>2. Soldiers use leather gloves when handling expended practice grenades.</li> <li>3. Two 10 lb. serviceable ABC fire extinguishers are on site.</li> <li>4. Soldiers wear eye protection.</li> </ol>	<p>How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders</p> <p>Who: Ammunition Point NCO</p>	L
	Employ Hand Grenades	Soldiers Hit by Thrown Practice Grenades	M	<p>Range NCOIC or RSO will: Warn Soldiers to watch for other Soldiers in their path before throwing and actions to take if in the path of a thrown grenade. Instructors will:</p> <ol style="list-style-type: none"> <li>1. Allow enough distance between qualifying Soldiers to ensure overthrown practice grenades will not hit other Soldiers.</li> <li>2. Ensure Soldiers wear ACH at all times while on or in the vicinity of the HGQC.</li> <li>3. Ensure Soldiers not involved in the HGQC stay clear of the course.</li> <li>4. Soldiers wear eye protection at all times.</li> </ol>	<p>How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders</p> <p>Who: NCOIC; RSO, Cadre</p>	L
	Employ Hand Grenades	Lost Soldiers	M	<ol style="list-style-type: none"> <li>1. Safety briefing will include measures to take if lost or separated.</li> <li>2. A SITREP will be provided to the chain of command, SQDN, BDE, and Range Control.</li> <li>3. Headcounts at each station.</li> <li>4. A thorough search will be conducted for the lost Soldier in coordination with training unit cadre and all available manpower.</li> <li>5. Gain 100% accountability of Soldiers and Cadre before continuing training.</li> </ol>	<p>How: MCOE Range and Terrain Regulation 350-19 MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat 3-16 CAV SQN policies on range operation Range safety brief to leaders</p> <p>Who: NCOIC; RSO</p>	L
<input type="checkbox"/> + <input type="checkbox"/> -						

4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL	
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">+</div> <div style="border: 1px solid black; padding: 2px;">-</div> </div>	Employ Hand Grenades	Soldiers unfamiliar with Hand Grenades/ Mandatory Training being conducted prior to Live Bay	M	<p>1. Soldiers taught proper grip and throwing technique at distance and accuracy (D&amp;A) training</p> <p>2. At the mock bay, Soldiers are taught live bay procedures and rehearse the evacuation drills.</p> <p>3. All Soldiers must successfully complete D&amp;A and mock bay training prior to entering the live bay.</p> <p>4. Training Company Commander, First Sergeant, or Company XO will be on site from start of training D&amp;A, mock bay, and throwing of live grenades.</p> <p>5. Pit NCOs will be SSGs certified by range NCOIC and Troop Commander.</p> <p>6. No concurrent training other than throwing hand grenades will take place from the start of D&amp;A through the completion of live bay to ensure Soldiers have their minds only on properly employing hand grenades.</p> <p>7. All Soldiers will move as one unit directly from mock bay to live bay.</p>	<p>How:</p> <p>MCOE Range and Terrain Regulation 350-19</p> <p>MCOE PM 385-6-1 AR 385-63, policies and procedures for Firing Ammunition for Training, Target Practice, and Combat</p> <p>3-16 CAV SQN policies on range operation</p> <p>Range safety brief</p> <p>Who:</p> <p>NCOIC; RSO; Range Cadre; Training Company CDR; XO; ISG, Troop Commander</p>	L
	<p>10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):</p> <p> <input type="checkbox"/> EXTREMELY HIGH     <input checked="" type="checkbox"/> HIGH     <input type="checkbox"/> MEDIUM     <input type="checkbox"/> LOW </p>					
<p>11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION</p> <p>All coordination and inquiries should be made directly with the A Troop, 3-16 CAV CP, at 706-626-6609 or with the Committee Team Chief listed above. Specific Course of Action, implementation, and execution for this activity is published within the SOP and/or Training Scenario.</p>						
<p>Concur:  JAMES E. HAYES LTC, AR Commanding</p>		<p>Concur:  WILLIAM L. THIGPEN COL, AR Commanding</p>				
<p>12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK     <input type="checkbox"/> Approve     <input type="checkbox"/> Disapprove</p>						
a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority			
RAINEY, JAMES E.	BG/O-7	USAIS, Commandant	<p>FOR </p>			
e. Additional Guidance:						

Risk Assessment Matrix		Probability (expected frequency)				
		Frequent: Continuous, regular, or inevitable occurrences	Likely: Several or numerous occurrences	Occasional: Sporadic or Intermittent occurrences	Seldom: Infrequent occurrences	Unlikely: Possible occurrences but improbable
Severity (expected consequence)		A	B	C	D	E
Catastrophic: Mission failure, unit readiness eliminated; death, unacceptable loss or damage	I	EH	EH	H	H	M
Critical: Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage	II	EH	H	H	M	L
Moderate: Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage	III	H	M	M	L	L
Negligible: Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage	IV	M	L	L	L	L
Legend: EH - Extremely High Risk H - High Risk M - Medium Risk L - Low Risk						
13. RISK ASSESSMENT REVIEW (Required when assessment applies to ongoing operations or activities)						
a. Date	b. Last Name	c. Rank/Grado	d. Duty Title/Position	e. Signature of Reviewer		
14. FEEDBACK AND LESSONS LEARNED						
15. ADDITIONAL COMMENTS OR REMARKS						

# Malone 1 Layout

Road Guard Position ●

Lower Course

Distance & Accuracy

Bleachers

Distance & Accuracy

Distance & Accuracy  
Mock Bay Area

Upper Course Qual

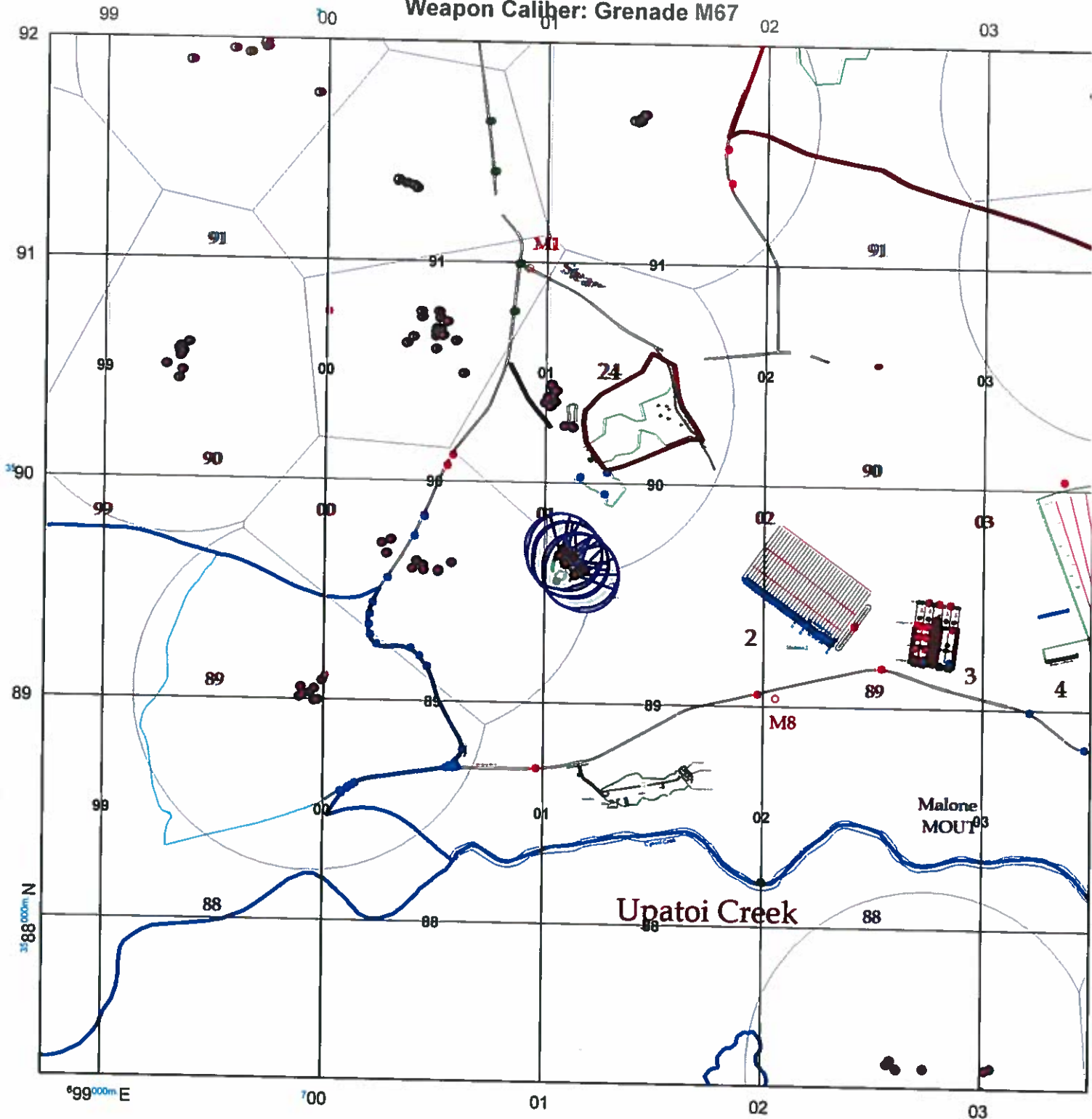
Distance & Accuracy



# Malone 1 Live Grenade Bays

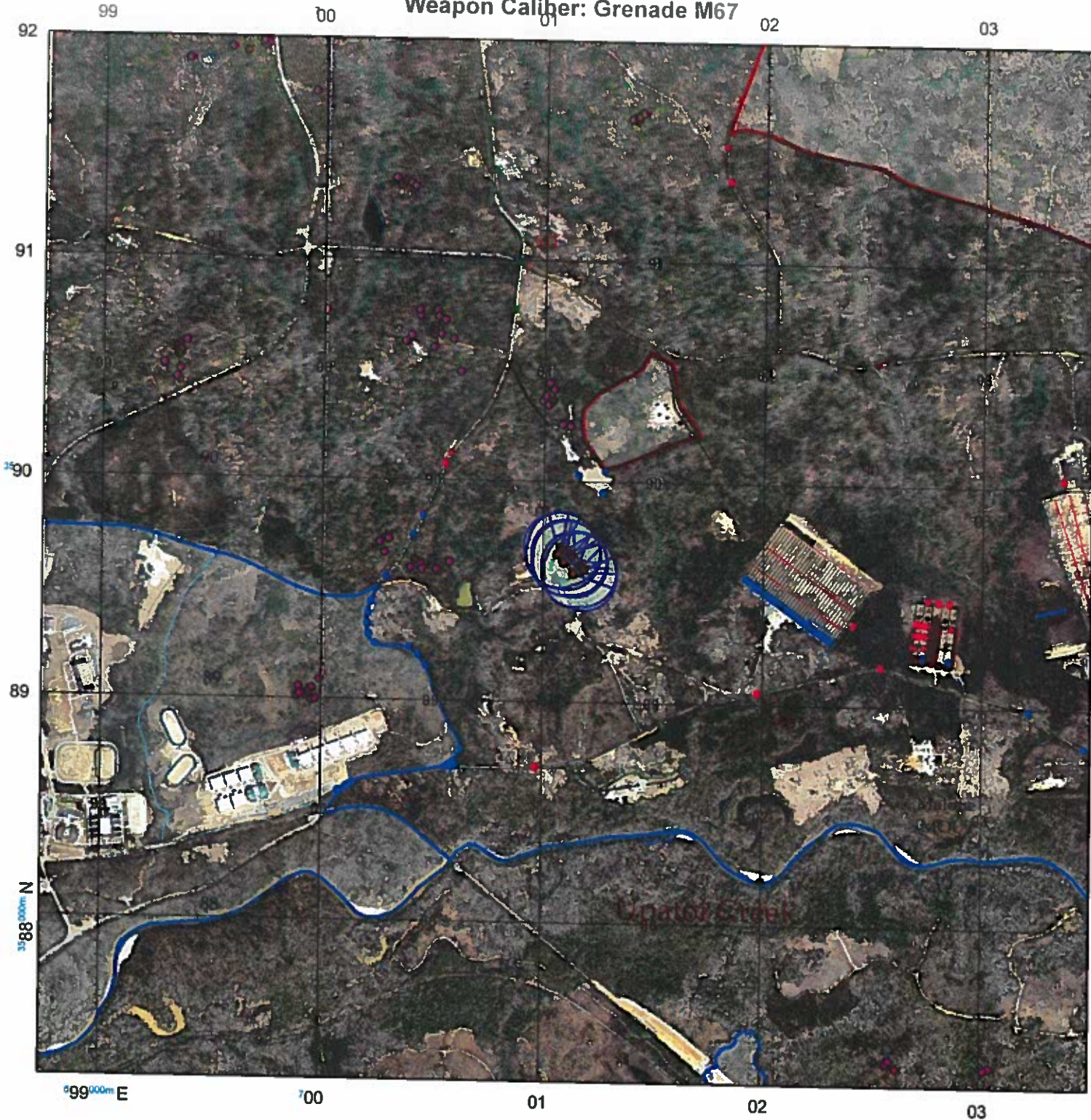


**FOUO Unclassified**  
**Weapon Type: SMALL ARMS**  
**Weapon Caliber: Grenade M67**



Range Manager Signature Authority: Brad Tesch	Date:		
Approving Authority: Ken Whitehead	Date:		
SDZ Created By:	Date: 11/10/2015	Unit: Range Operations	Phone: 706-544-6385 Email:
SDZ Name: Malone1_121014 EPR	FP: 16SGA0113789585	TP: 16SGA0118189602	
Installation: Fort Benning, GA.	FP: 16SGA0113989582	TP: 16SGA0112589673	
Range Name: Malone 1	FP: 16SGA0109089638	TP: 16SGA0113289663	
Range Officer:	FP: 16SGA0109489634		
Direct Fire	TP: 16SGA0108089700		
Aerial Target: N/A	TP: 16SGA0109389690		
FP: 16SGA0106489671	TP: 16SGA0116989618		

**FOUO Unclassified**  
**Weapon Type: SMALL ARMS**  
**Weapon Caliber: Grenade M67**



Range Manager Signature Authority: Brad Tesch	Date:		
Approving Authority: Ken Whitehead	Date:		
SDZ Created By:	Date: 11/10/2015	Unit: Range Operations	Phone: 706-544-6385 Email:
SDZ Name: Malone1_121014 EPR	FP: 16SGA0113789585	TP: 16SGA0118189602	
Installation: Fort Benning, GA.	FP: 16SGA0113989582	TP: 16SGA0112589673	
Range Name: Malone 1	FP: 16SGA0109089638	TP: 16SGA0113289663	
Range Officer:	FP: 16SGA0109489634		
Direct Fire	TP: 16SGA0108089700		
Aerial Target: N/A	TP: 16SGA0109389690		
FP: 16SGA0106489671	TP: 16SGA0116989618		