

FIRING/NONFIRING DATA

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

TO: Chief,
Range Division,
Directorate of Plans, Training, Mobilization and Security
Fort Benning, GA 31905

Date: 11 Oct 12 Log #10-4-12
Range: Griswold range
Title: BRM/ARM Marksmanship Training (Steel Targets)
Problem No:

THRU: 198 IN BDE

FROM: 198th S3

SECTION I, TYPE OF TRAINING

a. Live Fire b. Non-live Fire CP/Controller Coordinates: FA9778 7467

SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS

Coordinates	Type	Model/DODAC	Size of Charges
N/A	N/A	N/A	N/A

SECTION III, WEAPONS/AMMUNITION REQUESTED

Coordinates of Weapons Position	Type Weapon/Model Number	Type Ammunition	Left Limit	Right Limit
Start: FA 9777 7467 to FA 9779 7466	M16A4/M4 M68/PAC4/PEQ-2/PEQ-15	5.56mm Ball/Tracer Laser Aiming Device	0220 Mils Grid Azimuth	0320 Mils Grid Azimuth
Stop: FA 9782 7486 to FA 9785 7486	M16A4/M4 M68/PAC4/PEQ-2/PEQ-15	5.56mm Ball/Tracer Laser Aiming Device	0220 Mils Grid Azimuth	0320 Mils Grid Azimuth

SECTION IV, LIVE FIRE EXERCISES Attach the following:

- Scenario of training to be conducted:
- Sketch of area:
- Risk Assessment:
- Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired:

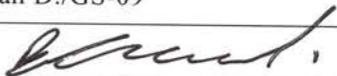
SECTION V, NON-LIVE FIRE TRAINING

Training area(s) to be occupied:

- Scenario of training to be conducted:
- Sketch of area(s) to be occupied:
- Risk Assessment:

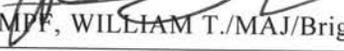
Name/rank of requesting officer:

Crouch, Brian D./GS-09



Name/rank of Major Unit S3/Commander:

KAMPF, WILLIAM T./MAJ/Brigade Ops Officer/S3



SECTION VI, FOR RANGE DIVISION USE

DATE: 5 FEB 13

TO: 198th Infantry Brigade

FROM: Range Division,
Directorate of Plans, Training,
Mobilization and Security
Fort Benning, GA 31905

a. Roadblocks to be closed:

A: 8, 18, 23, 23A, 30, 33A, 34.

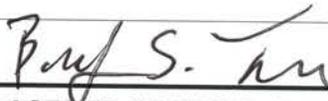
b. Road(s) to be closed/road barrier locations:

c. Remarks:

Unit will only fire Steel Targets with approved CG waiver. LASER warning signs will be posted prior to and during LASER use.

d. This approval expires: 4 FEB 15

Chief, Range Division
Directorate of Plans, Training, Mobilization and Security





DEPARTMENT OF THE ARMY
HEADQUARTERS, 198th IN TRAINING BRIGADE
FORT BENNING, GEORGIA 31905-3103

ATSH-TB

4 Jan 13

MEMORANDUM FOR RECORD

SUBJECT: Basic & Advanced Rifle Marksmanship Training

1. Purpose: The purpose of the training is to improve the marksmanship skills of OSUT Soldiers by conducting zero, basic/ advanced rifle marksmanship (BRM/ ARM), and close quarters marksmanship (CQM) from 7 - 25 meters and 50 to 200 meters. This training will be conducted in accordance with appropriate U.S. Army and Fort Benning regulations.

2. General:

a. Griswold range is live-fire range used by Fort Benning agencies. Soldiers will train and fire under controlled conditions at all times. During training, a line official gives all firing commands. The Soldiers are instructed when to load their weapons, and when to engage targets. At the conclusion of the exercise, the Soldiers will approach the targets to observe the effect but not until the firing line is clear, weapons on safe, and instructed by the safety officials to move down range.

b. Soldiers will fire from fixed firing points ALT positions at the 25 meter, 100-meter and 200-meter lines. Each soldier will remain at his respective firing position until that phase of training is complete. Target changes and target repairs will take place during cease-fire periods only. Weapons must be cleared before moving to the next firing line. Multiple shooters will move online when moving to next firing position, DS/Range safeties will control shooter that fall behind.

3. Safety:

a. Each Soldier will receive a verbal safety briefing and range orientation using the safety briefing script. No targets or personnel will proceed or be placed beyond the 300-meter line. Galloway range will facilitate no more than 30 Soldiers per line. Soldiers will only move down range to rehab targets/ get feedback once the RSO confirms that both lines are "safe" and instructs firing line NCO to allow Soldiers to move forward. Soldiers will always wear ballistic eye and hearing protection when firing a weapon. Soldiers will wear ballistic helmet, vest, elbow and knee pads during CQM training and portions of BRM, ARM and BMS as designated by the commander. When firing at Steel Targets soldiers will wear ballistic helmet, ballistic eyewear and Body armor.

Laser's: Class III A lasers are not eye safe on dual low mode within 25 meters. PEM - 1A is not a tactical laser and must be used within 25 meters. Laser Warning Signs will be in place prior to opening the range. Range safety briefing will include hazards using Lasers and NVD's.

Incident: When an incident occurs on the range, regardless of injury or not, the OIC/RSO will immediately call a cease fire and report it to Range Control and the using unit's higher headquarters. OIC/RSO will take action as directed by Range Control. The cease fire will remain in effect until the problem is resolved and cleared through Range Control. If the incidents results in an injury, the OIC/RSO will use the procedures outlined in the medical paragraph. The following information will be furnished by the OIC/RSO to Range Control:

- a. Designation of unit
- b. Range and location
- c. Type of weapon involved
- d. Type of ammunition involved
- e. E. Brief summary of what happened
- f. F. Personnel injuries and extent
- g. Full Name, SS#, Rank and unit of injured personnel
- h. Extent of property damage
- i. Intentions regarding an AR 15-6 investigation
- j.

Weapons/Ammunition Malfunction Reports: When a malfunction is experienced, the OIC/RSO will suspend all firing and immediately notify Range Control. The weapons and the components and ammunition involved will remain in place. The cease fire will remain in effect until cleared thru Range Control. An investigation is required and will be conducted by the ammunition and weapons inspection personnel and DOL.

Ammunition: There will be no de-linking or re-linking of any ammunition. Any ammunition that has been de-or re-linked is considered nonstandard and is prohibited from the range.

Medical: In the event of an accident, injury or illness, the OIC/RSO will immediately call a cease fire then call 911 using the standard 9 Line MEDEVAC to determine what type of evacuation is the most appropriate for the injury (loss of life, limb or eyesight). MEDEVAC will be IAW MCoE Regulation 350-19 and USAIC 40-2. Landing zone for MEDEVAC aircraft will be established prior to use and will be marked appropriately. Range Control will be notified in the event. The cease fire will remain in effect until cleared through Range Control.

Communications: Unit will maintain continuous contact with Range Control at all times. If communications are lost the unit will go into a self induced check fire until communications are restored.

4. Pre-firing procedures:

a. The four fundamentals of marksmanship apply for this program and will be briefed in depth. Soldiers will receive primary marksmanship instruction (PMI) for BRM, ARM, and CQM prior to conducting live fire training. Safe weapons handling, range procedures, weapons maintenance, load & unload procedures, functions check are also covered during PMI. Safe weapons handling will be stressed throughout all courses of fire. All weapon bores are visually inspected by a NCO prior to and at the conclusion of any live-fire training IOT ensure there are no barrel obstructions. CCO's (M68) are mounted IAW operator's manual and checked by a NCO. All PMI instruction and live-fire training courses of fire are IAW FM 3-22.9 and 198th marksmanship lesson plans.

b. The OIC will ensure that he has all the required personnel and equipment on hand.

c. The OIC will prepare the daily risk assessment worksheet and will modify the standard safety briefing as required to address any specific hazards that are not covered appropriately in the standard script. OIC will brief the left and right limit of the range so that firing will stay within the approved SDZ.

d. The OIC will obtain an opening code from Range Control and will hang the red range flag prior to allowing the range to go "hot". The opening code and time will be recorded on the sheet provided in the front of the range book.

5. Conduct of firing:

a. In accordance with MCoE Regulation 350-19, Range and Terrain Regulation, the Range Safety Officer (RSO) will control the firing by issuing the firing commands IAW Fort Benning regulations.

b. The RSO will confirm that the OIC has opened the range with Range Control, that the range flag is displayed, and that continuous communications are maintained with Range Control before he calls the shooters to the line.

c. The RSO will ensure that he has communications with cadre.

d. RSO will ensure weapons are only lock and loaded on the Firing Line after the command is given and clear weapons before leaving the firing line or the last engagement.

e. Targets will be placed on the range 25 meters from the Firing line to the 300 meter line directly in front of the shooters firing point. Steel Targets will not be engaged closer than 100 meters.

6. Training conducted on range:

a. Training will consist of the following courses of fire utilizing the M16 (all variants) and M4 carbine:

- 1) Zero/ grouping: 25/ 37 meters
- 2) Zero/ grouping: 100-200 meters

- 2) Confirm Zero/ grouping: 100-200 meters (With or Without Steel targets)
- 3) Barrier firing (ARM 2/5 and 6): low wall, high wall, vehicle, barrel, door way etc. 10- 200 meters from fixed firing point. If Steel targets are used during Barrier firing target engagements will be at least 100 meters from the firers position.
- 4) Alternate position firing: kneeling, sitting, and standing 50-200 meters
- 5) CQM: stationary, left/ right turn, walking forward 4-25 meters (No steel targets will be used)
- 6) Stress fire: Under NCO supervision Soldiers will run 100-200 meters to a designated firing point; lock and load weapon; engage targets in their lane from a fixed firing point or shooters box, negotiate and engage targets around barriers as required, conduct tactical reloads as required, and lock and clear weapon upon completion of that course of fire. Stress fires will be incorporated into all courses of fire once 200-meter zero is confirmed. A ratio of one safety NCO per Soldier will be maintained on all single Soldier stress fires where lateral movement between engagement lanes is required and one safety NCO per six Soldiers when a fixed firing line is used for multiple firers. When any lateral or forward movement is conducted the weapon will be pointed at the ground and on safe until the Soldier is in line and properly positioned to engage designated targets.

7. 25/ 37m Zero and grouping (Steel Targets will not be used during 25/37m Grouping and zeroing)
 Soldiers will fire from existing firing points at 25 and 37 meter targets with M4 carbine Backup Iron Sight (BUIS) and M68 CCO. Standard target frames or popsicle sticks will be used through-out this scenario. Firing orders will move to their firing points at the low ready keeping their weapon generally pointed down range. Soldiers will receive their ammunitions from the Ammunition Supply Point (ASP) located behind the firing line. Soldiers will place their weapon on the sandbag. Soldiers waiting fire will place their weapon to the rear of the sandbag either on the right or left side. Soldiers will not Lock and Load their weapons until told to do so by the Firing Line NCOIC. Soldiers will move down range to the 25 meter targets under the safety supervision. Weapons will be cleared and remain on the firing line prior to moving down range. **Reference diagram #1**

- a. Fire 6 x 6 round groups until the shot group can be identified and zeroed to 1 inch above the center of the target
- b. Shot group must be identifiable; there is no size requirement at 25 meters
- c. 8 clicks on the CCO will move the shot group 1 inch at 25 meters
- d. Bullet holes will be taped after each iteration.

8. Confirm Zero 100 meter line: Zero and grouping (With or without Steel Targets)
 Soldiers will fire from existing firing points to refine a 200m zero at ranges of 100m and 200m with BUIS and M68 CCO. The most important aspect of confirming zero is that it allows a Soldier to see target hits of all rounds fired. It also allows a Soldier to see the effects of wind and gravity on their bullet. Soldier's zero is confirmed by firing fifteen rounds at 100m (3 strings of 5 rounds) and achieving 8 of 10 rounds within a 6 inch circle. Also confirm zero at 200m by firing fifteen rounds (3 strings of 5 rounds) and obtaining 8 of 10 rounds in a 12 inch circle (six inch shot group). **Reference diagram #2 and diagram #5 when using steel targets**

9. CQM Reflexive Fire day and night (ARM 2): (Steel Targets will not be used during Reflexive Fire day or night) Slow-aimed fire, controlled pairs, and rapid-aimed fire:

Soldiers start from existing fire lines and will fire from a stationary positions at 4, 5, 10, 15 and 25m from target.

- b. Barriers can be incorporated into CQM once Soldier target engagement proficiency is demonstrated from stationary position, turning L/R, and walking forward 4-25 meters.
- c. Soldiers will stay generally online with the Soldier to their left and right when moving forward, weapon pointed to the ground and on safe until audible signal is initiated to engage their target.
- d. During the Reflexive Fire a ratio of one safety NCO to six Soldiers will be maintained when moving in-depth or in-width of the range to close on the targets. Soldiers will always center on the target they are engaging to stay within range fan limits and keep the weapon pointed to the ground and on safe. On command of the line NCOIC the Soldiers will move forward at the low ready. Soldiers will engage their designated target upon an audible signal, verbal command, whistle or air horn. Again, the Range OIC / RSO are responsible to designate a line safety that will clear weapons after each phase of firing is complete, ensure safe employment of the weapon system, and range limits are observed. The techniques used in marksmanship training are primarily derived from FM 3-23-35, FM 3-06-11, and FM 3-22-9.

Reference diagram #3

10. Barrier Shoot day and night (ARM 3 & 5): (With or without Steel Targets)

Soldier will demonstrate the ability to detect, acquire, and engage single and multiple targets at variable distances and exposure times from behind varying conditions of cover by rapidly applying the fundamentals of marksmanship. Engage targets from behind cover placed on the firing line, Soldier will engage fixed targets at distances from 50-300m when steel targets are not used and 100-300m when steel targets are used. Soldiers will fire from the left and right side and over the top of barriers during this training. Targets will be fired upon in accordance with the range scenario/SOP. Soldiers move, negotiate obstacles, run and conduct tactical reload, at no time will a Soldier move any apparatus on the range unless under the direct supervision of a Range NCO. When Steel targets are approved for use they will not be engaged any closer than 100 meters and will not be within 10 meters of any permanent mechanical targets or electrical range infrastructure. **Reference diagram #4 and diagram #5 when using steel targets**

c. Firing point movement will only be forward or horizontal to the firing line with weapon always pointed in a safe direction and only fired at the target they are in front of to keep bullets impacting within the approved SDZ.

11. Movement Phases during Training:

a. Movement is in one of three directions: Straight forward down-range, horizontal to the line of fire, then forward down-range. When not engaging a target, Soldiers will carry the weapon in the low ready position pointed towards the ground, in a safe direction, and fire down-range straight into the target. Soldiers conducting Reflexive Fire will conduct left and right pivot turns during engagements.

12. Post-firing procedures:

a. Each relay will ensure that the firing line is policed of brass and trash before being allowed to remove their equipment from the firing line.

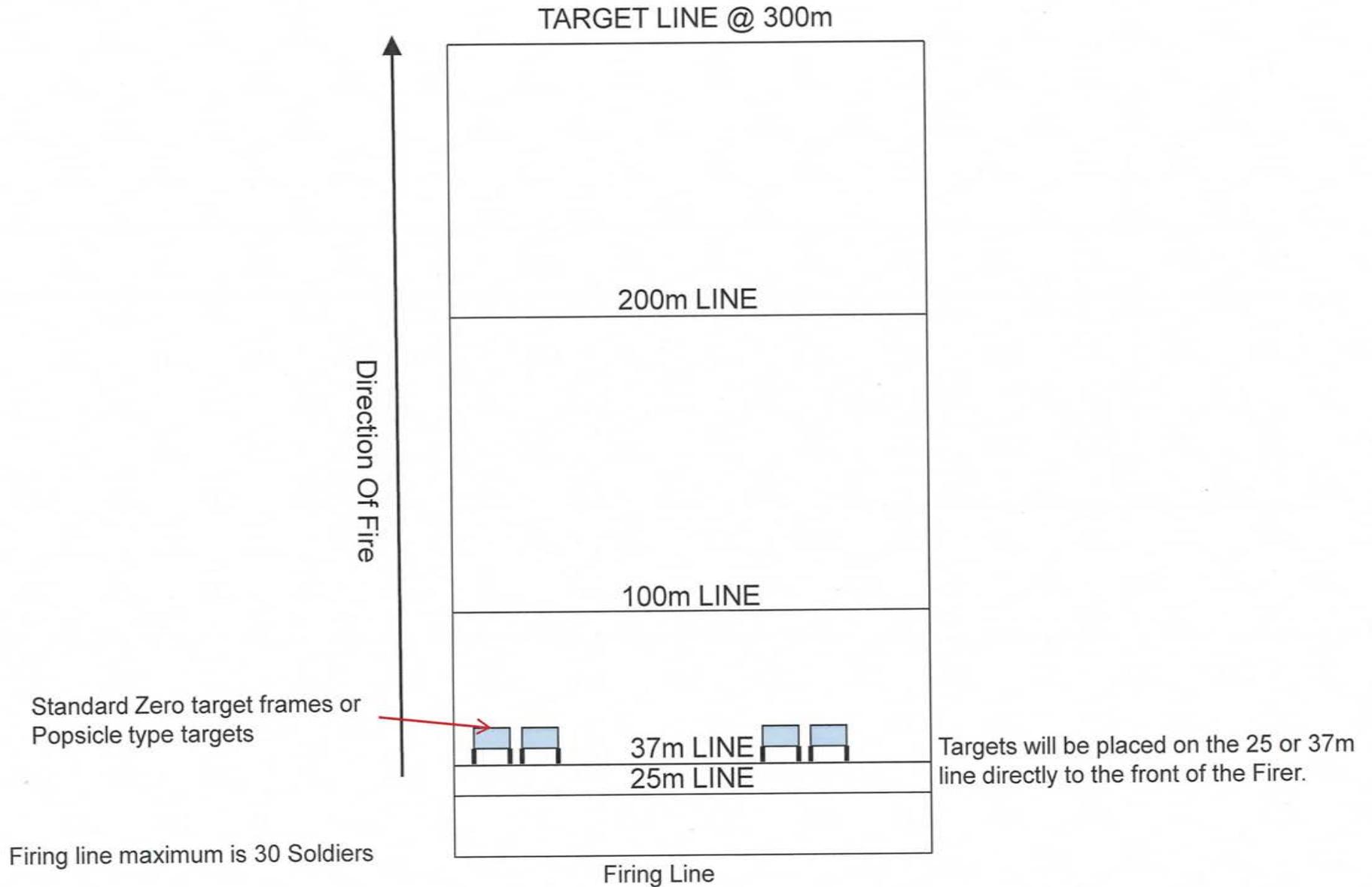
b. At the conclusion of the day's firing, all parking and other administrative areas will be policed of all trash. All targets, to include barrier apparatuses, will be removed by using unit from the range.

c. The OIC will request a closing code from Range Control and will provide Range Control, the number of personnel trained and the number of rounds of ammunition expended during the training, as well as any other information requested by Range Control. The OIC will record the closing code and time on the sheet provided in the range book.

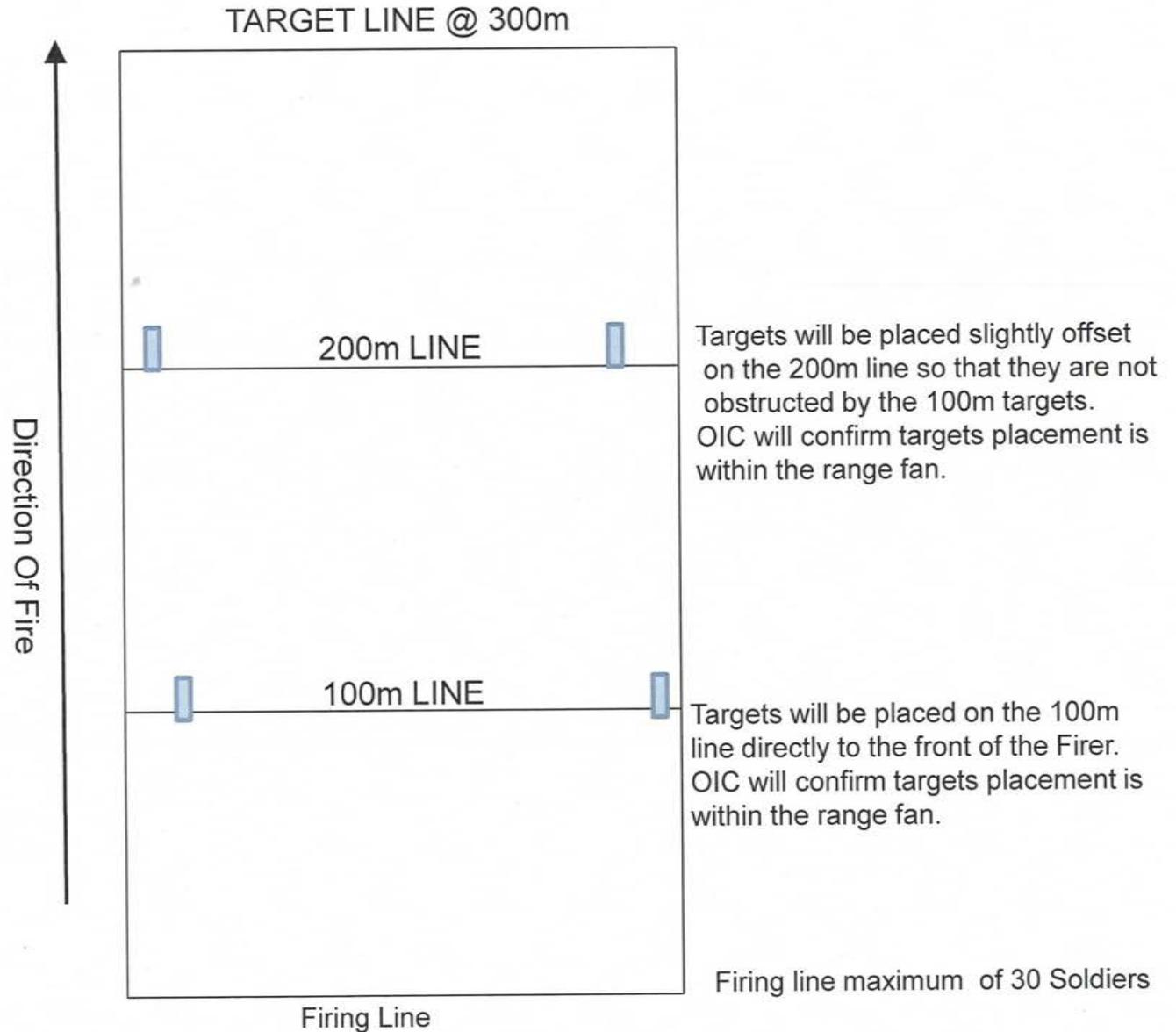
13. Point of contact is the undersigned at (706) 544-8021.


JONATHAN T. NEUMANN
COL, IN
Commanding

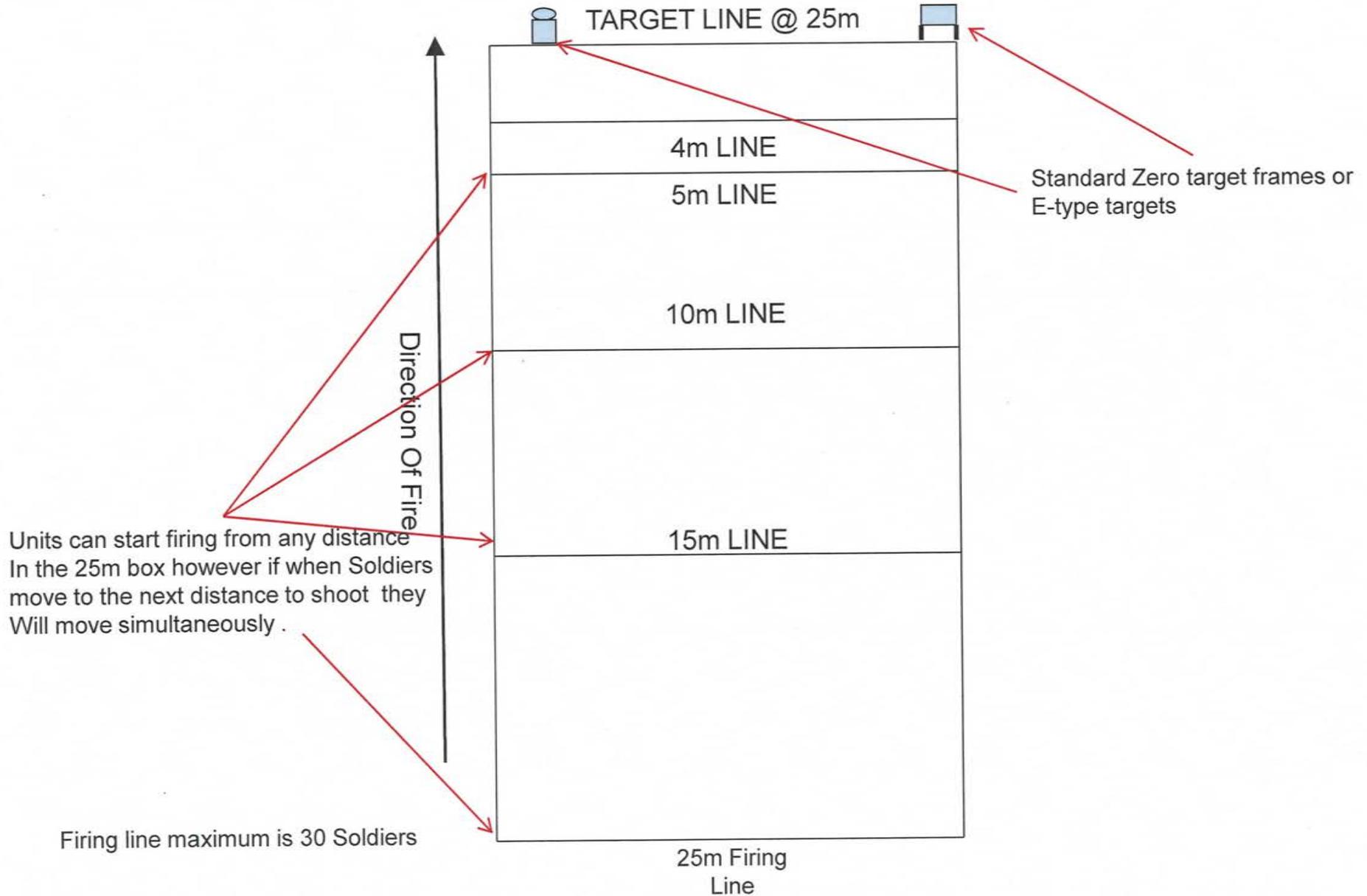
Galloway Range –198th Marksmanship Training 25/37m Zero and Grouping, Firing Line diagram#1



Galloway Range –198th Marksmanship Training
Confirm 25/37m Zero and Grouping, Firing Line diagram#2

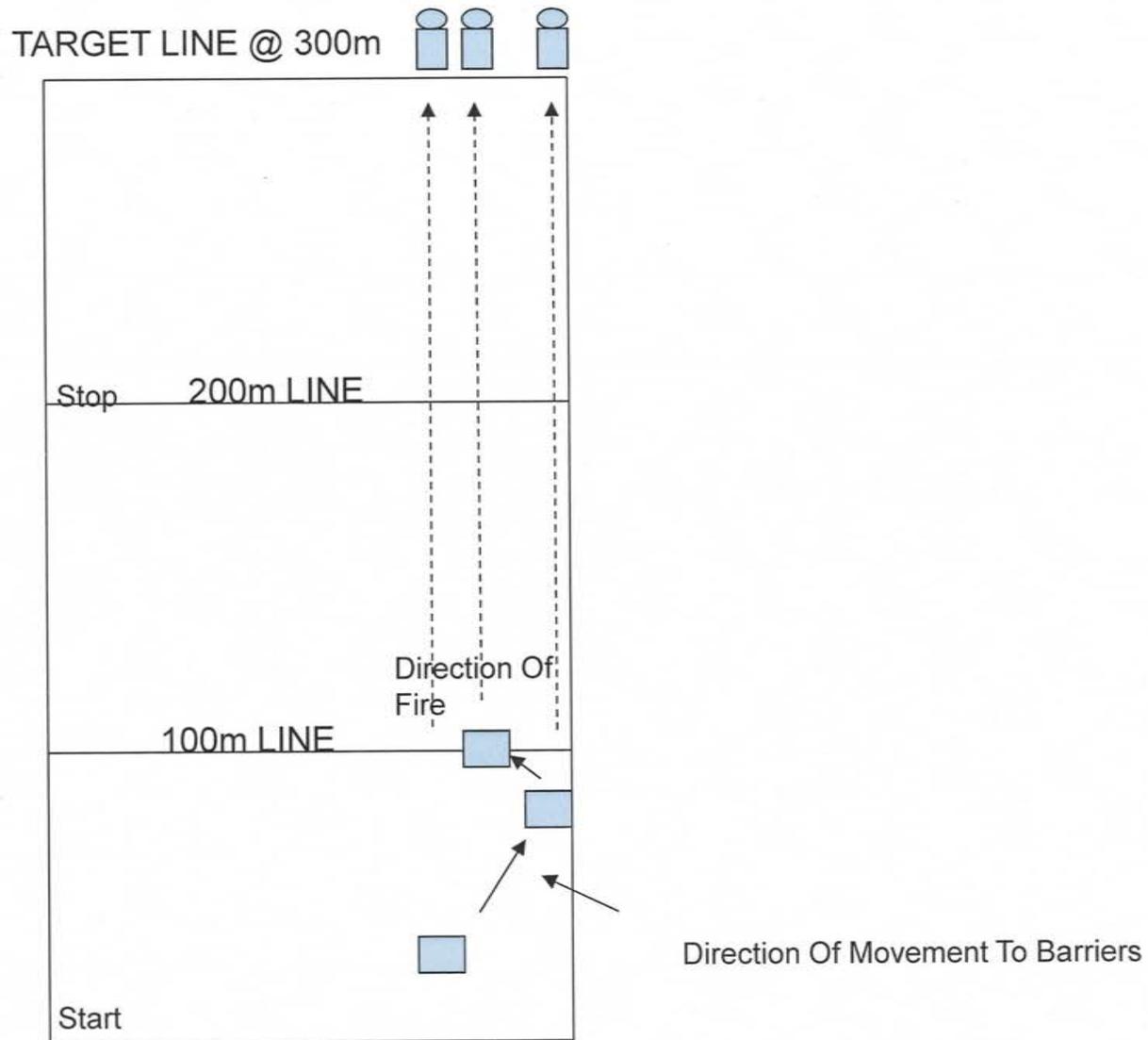


Galloway Range –198th Marksmanship Training Reflexive Fire, Firing Line diagram#3

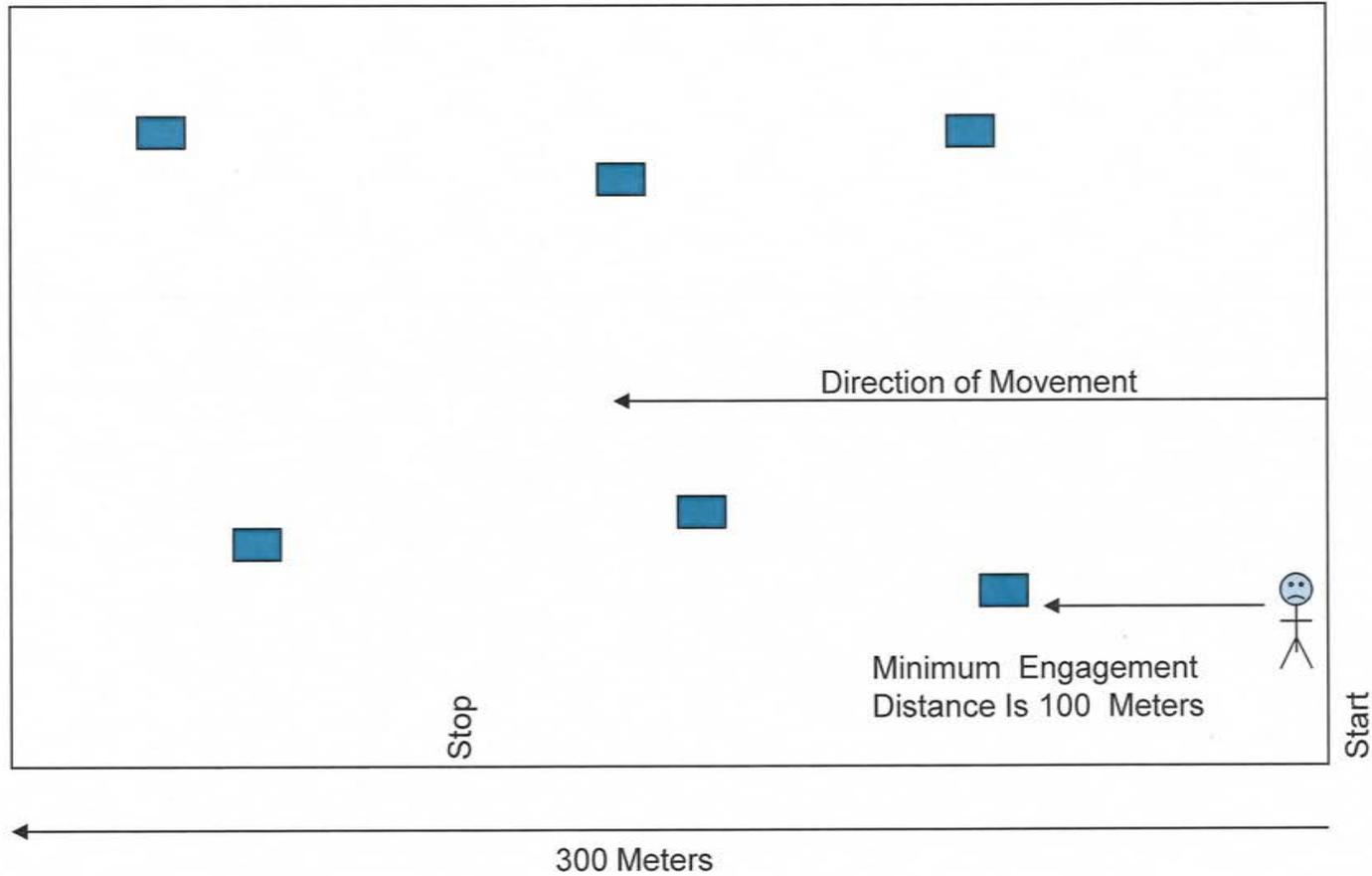


Galloway Range –198th Marksmanship Training

Barrier shoot Firing Line diagram#4



Galloway Range –198th Marksmanship Training Steel target Engagement



■ = Steel Target

Steel Targets Will Be Engaged IAW the Approved CG Waiver

COMPOSITE RISK MANAGEMENT WORKSHEET

For use of this form, see FM 5-19; the proponent agency is TRADOC.

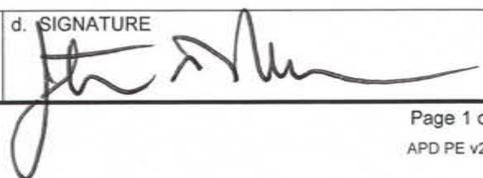
1. MSN/TASK BMS, BRM 4-8 and ARM (Periods 2, 3 and 5) Griswold Range		2a. DTG BEGIN 6 Dec 2012		2b. DTG END 6 Dec 2013		3. DATE PREPARED (YYYYMMDD) 20121126	
4. PREPARED BY							
a. LAST NAME Burruss			b. RANK GS-11		c. POSITION Training Tech 706-544-0074		
5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
Marksmanship Training	Accidental Discharge	M	- Soldiers and Cadre will treat weapons as if they are loaded at all times. - Safeties will supervise soldiers during firing - No running on Range when Weapon is loaded	L	- Safety Briefings - Supervision and oversight.	- Drill Sergeant - Range Safety Officer	
	Accidental Discharge	H	- Safeties will observe clearing barrel procedures. - DS will supervise and assist soldiers with malfunctions on the firing line	M	- Safety Briefings - Supervision and oversight.	- Range OIC - Range Safety Officer - Drill Sergeant	
	Accidental Discharge	M	- Any Soldier that has an accidental discharge will be removed from the firing line and retrained, recertified and reinserted into training at the Company Commanders discretion	L	- Safety Briefings - Supervision and oversight. - Unit SOP	- Drill Sergeant - Range Safety Officer - Company Commander	
Fire Weapon	Weapons Control Firing in Burst Mode	M	- Enforce disciplined fire control techniques Soldiers will be briefed not to fire on Burst	L	- Safety Briefings - Supervision and oversight.	- Range Officer in Charge - Drill Sergeant	
Ammunition Point	Improper Ammunition	M	- Range OIC will insure the proper ammunition is used and delivered to the range for the weapon system that is to be fired. - Ammo NCO will report any discrepancy	L	- Safety Briefings - Supervision and oversight.	- Range OIC - Ammunition NCO - Drill Sergeant	
Ammunition Point	Mixed ammo and Fires	M	- Blank and Live ammunition will stored together at the ammunition point. - Ammo Point will have Fire extinguisher on hand. No smoking within 50ft of AP	L	- Safety Briefings - Supervision and oversight.	- Range OIC - Ammunition NCO	

Additional space for entries in Items 5 through 11 is provided on Page 2.

13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check one)

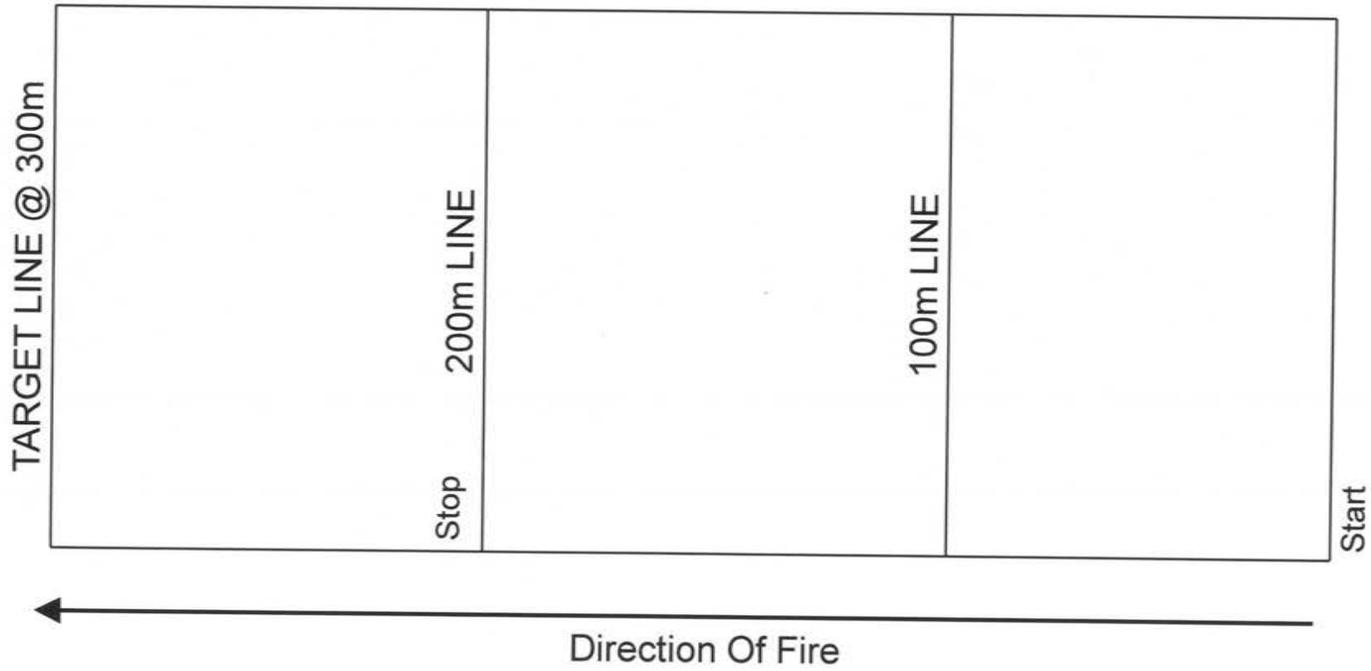
LOW
 MODERATE
 HIGH
 EXTREMELY HIGH

14. RISK DECISION AUTHORITY

a. LAST NAME NEUMANN	b. RANK COL	c. DUTY POSITION Brigade Commander	d. SIGNATURE 
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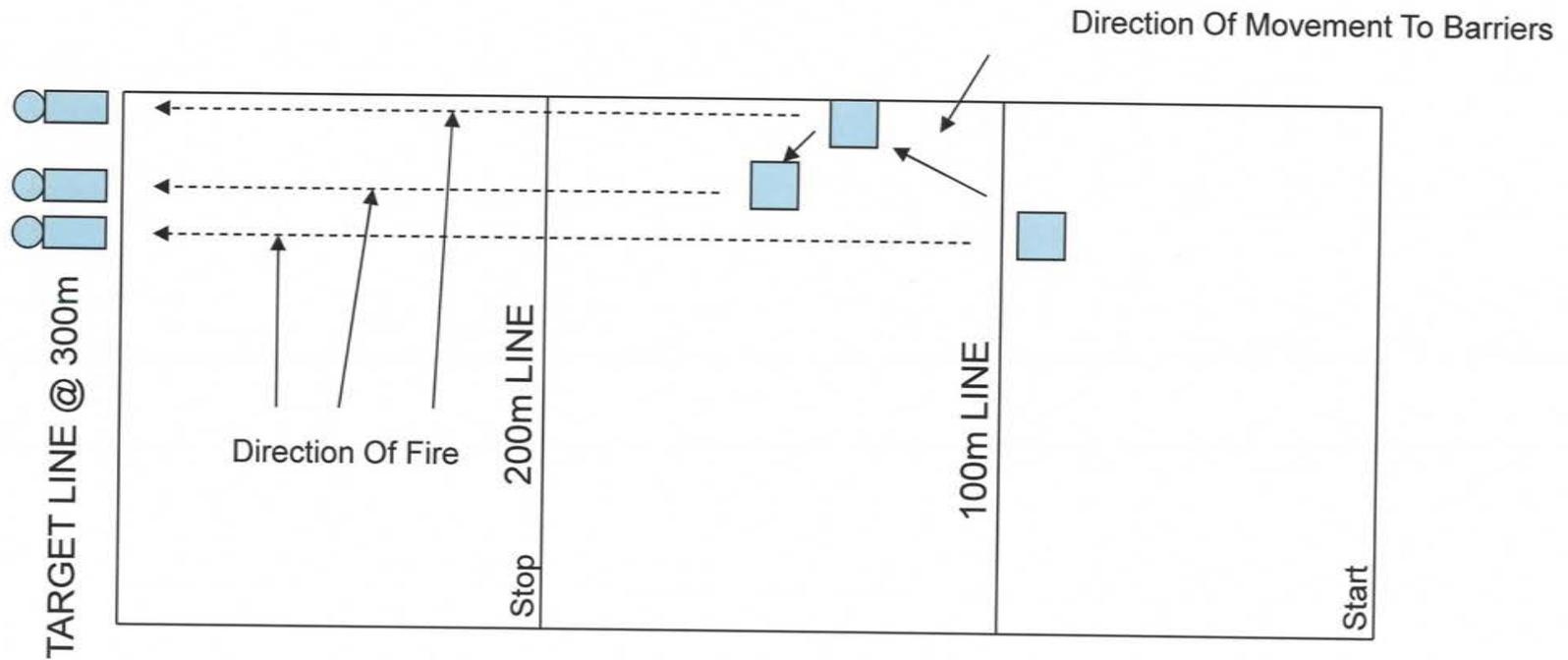
ITEMS 5 THROUGH 12 CONTINUED:							
5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
Marksmanship Training	Fratricide	M	- Weapon is carried at the low ready when moving on and off range. - Soldier will ensure his weapon is on safe, finger is out of the trigger well.	L	- Safety Briefings - Supervision and oversight.	- Range OIC - Range Safety Officer - Drill Sergeant - Soldiers	
	Fratricide	M	- Ensure weapon is cleared before the soldier leaves the firing point. During BRM Periods Drill Sergeant will visually inspect the weapon, during ARM Battle Buddy visually inspect	L	- Safety Briefings - Supervision and oversight.	- Range OIC - Range Safety Officer - Drill Sergeant - Soldiers	
	Fratricide	M	WEAPONS WILL BE CLEARED BY THE SOLDIERS AT THE CLEARING BARREL AND VISUALLY CHECKED BY CADRE BEFORE MOVING OFF FIRING LINE	L	- Safety Briefings - Supervision and oversight. - Clearing Barrel Procedures	- Range OIC - Range Safety Officer - Drill Sergeant - Soldiers	
Eye/Hearing	Eye/Hearing Loss or Injury	M	- Soldiers will wear ballistic eyewear while on the range and firing. - Soldiers will wear hearing protection on the firing line.	L	- Safety Briefings - Supervision and oversight.	- Drill Sergeant - Range Safety Officer	
Ammunition	Unauthorized removal of ammunition from range	M	- Cadre will conduct a through brass and ammo check prior to leaving the range - Ammunition NCO will maintain accountability of ammunition and expenditures.	L	- Safety Briefing - Unit SOP - Command Oversight	- All Cadre - Ammunition NCO	
Weather	Weather and Changing Conditions during Training	M	- Company Commander will adjust his daily risk management worksheet as conditions change ie weather (Storms, hot, cold), range malfunctions, cadre availability,etc.	L	- Command Oversight	Company Commander	
Clear Weapon	Muzzle Obstructions	M	- Soldiers weapons will be checked by a cadre member before firing. - Weapons will be checked for obstructions any time a Soldier falls or drops his weapon.	L	- Safety Briefing - Unit SOP	- Drill Sergeant - Range Safety Officer	
	Lost Soldier	M	- When units discover a Soldier is unaccounted for they will immediately cease training, Notify Range Control and follow the procedures outlined in -MCoE Range Regulation 350-19	L	-MCoE Range Regulation 350-19	- All Cadre	
	Moving up and downrange to check targets	M	- Drill Sergeants and Soldiers will check weapons to insure they are clear and on safe prior to Soldier being allow to move up and downrange to check Targets	L	- Safety Briefing - Unit SOP	- Drill Sergeant - Range Safety Officer - Soldiers	
Steel Target Firing	Unapproved use	M	- Units must have prior approval to use Steel targets during ARM/BRM Preriods. - Units will use this CRMWS in conjunction with the approved steel target range packet.	L	-MCoE Range Regulation 350-19 - Approved Steel target rang packet	- Range OIC - Drill Sergeant - Range Safety Officer - Soldiers	

Griswold Range –198th Marksmanship Training
Zero, Grouping, CQM From 100, 200, And 300m Firing Lines

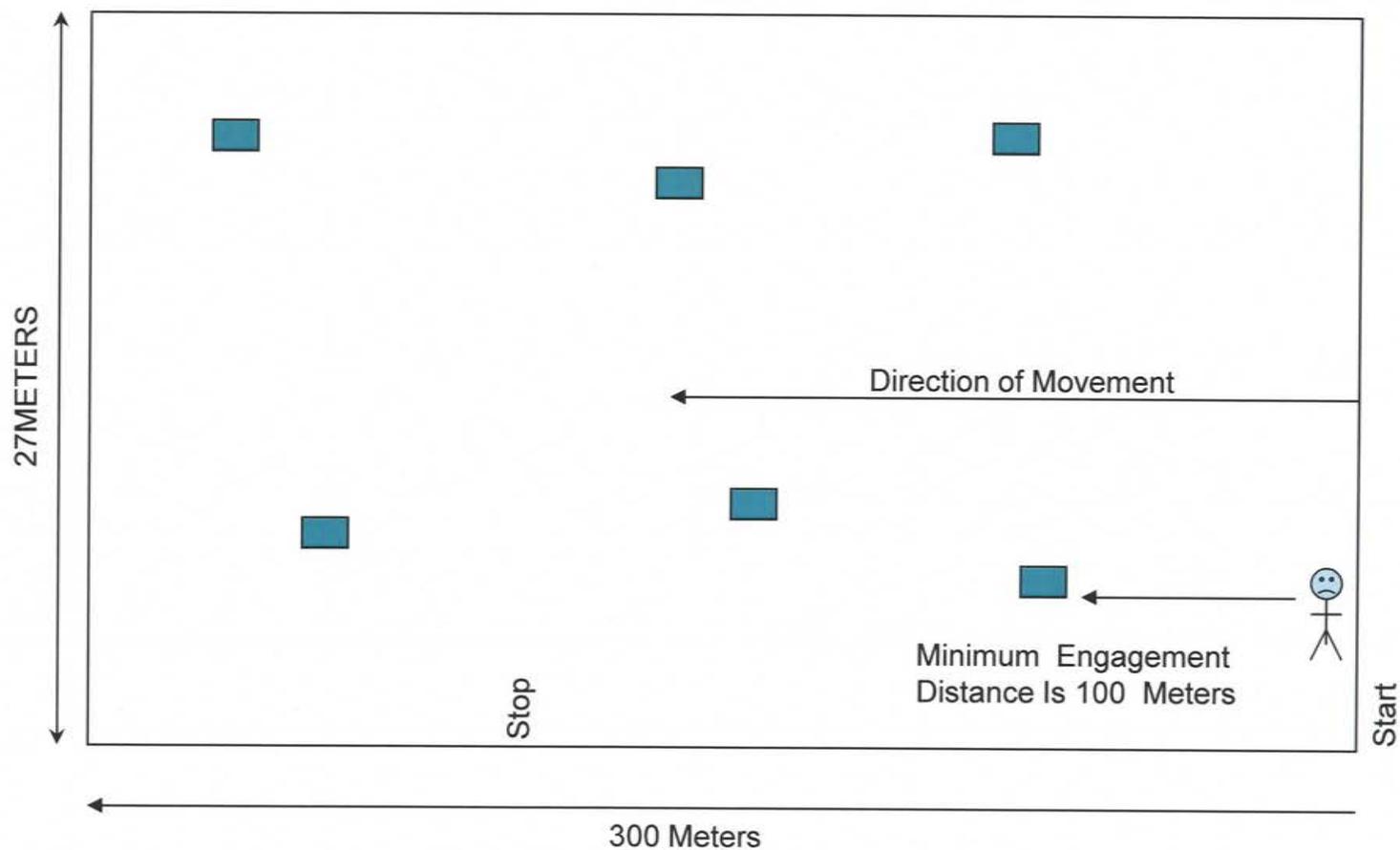


Griswold Range –198th Marksmanship Training

Stress Fire, Barrier, Multi Target Training



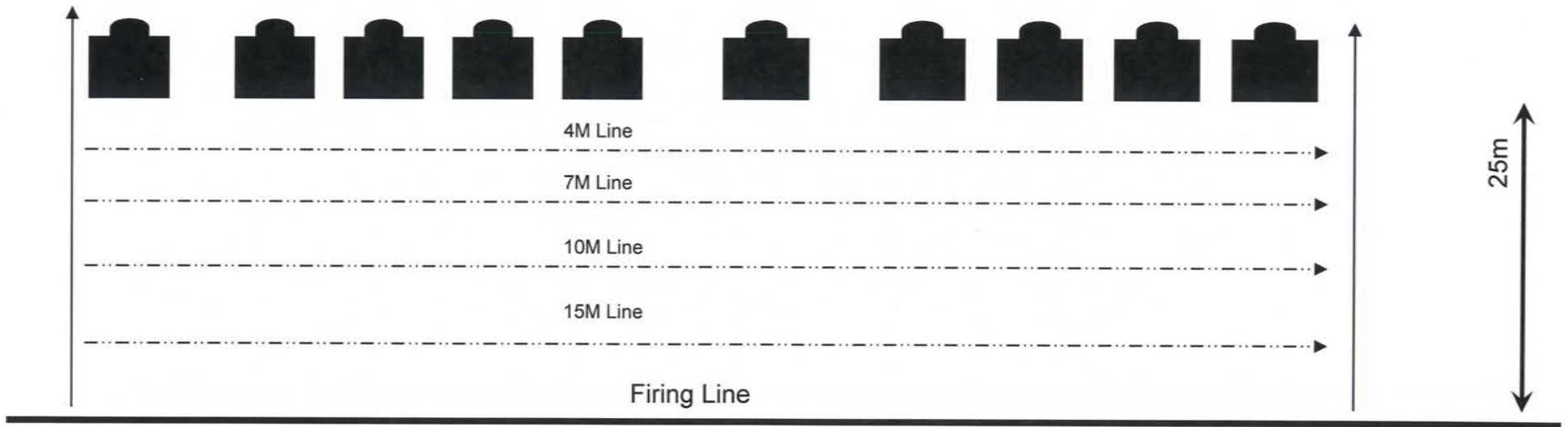
Griswold Range – 198th Marksmanship Training Steel target Engagement



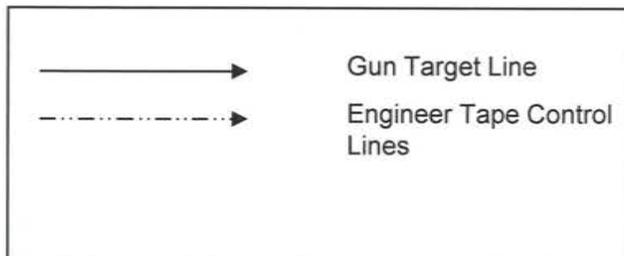
 = Iron Maiden Target

Iron Maiden Targets Will Be Engaged IAW the Approved CG Waiver

Griswold Range –198th Marksmanship Training CQM Layout



Legend





Griswold Range
198th Marksmanship Training

300m

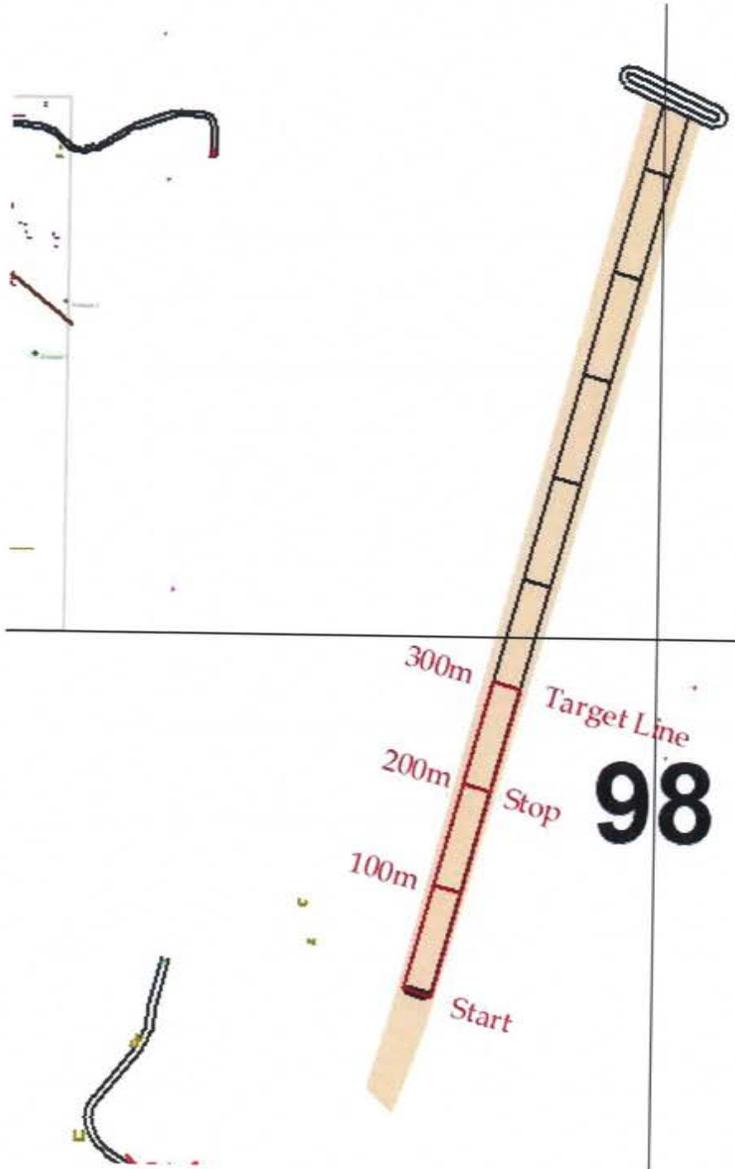
27m

Griswold KD

198th IN BDE Marksmanship Training

98

99



Griswold Range 198th BRM/ARM Marksmanship (Steel) Log #10-4-12 Roadblock List, 01 Nov 2012

BLOCK	GRID	LOCATION	TYPE
A-1	FA 911 792	Across firebreak 200m down Fiske Range at right end of KD berm. Permanently closed.	Cable
A-2	FA 910 783	Off Sightseeing Rd on unnamed trail opposite of entrance to LRC.	Gate
A-4	FA 925 766	Off Sunshine Rd 1,200 m W. of entrance to Grandstaff range.	Gate
A-5	FA 936 762	Across entrance road to Grandstaff Range. 10m N. of Sunshine Rd.	Gate
A-6	FA 939 763	Off Sunshine Rd 100m W. of Oswichee Creek. Permanently closed.	Cable/Berm
A-8	FA 968 740	Across unnamed trail 30m N. of Sunshine Rd and 800m N.W. of entrance to Griswold Range.	Gate
A-10	GA 018 730	Across entrance road to Flint Range. 50m N. of Sunshine Rd.	Gate
A-11	GA 019 731	Across Lumpkin Trail 30m N. of its intersection with Sunshine Rd.	Gate
A-11A	GA 032 729	Rd guard pos # 2 for Garnsey Rng Obj 'E' (intersection Jamestown/Sunshine Rd's	Rd Grd # 2
A-12	GA 033 742	Across Garnsey Rd 50m W. of its intersection with Jamestown Rd.	Gate
A-12A	GA 029 744	Across Garnsey Rd 400m W. of A-12 Roadblock.	Gate
A-12B	GA 028 741	Across trail 150m SW of A-12A Roadblock. 50m W. of Range Bldg.	Gate
A-12C	GA 036 746	Road guard position # 3 for Garnsey Rng Objective 'E' (Jamestown at Lightning Rd)	Road Guard # 3
A-13	FA 936 762	Across Sunshine Rd 10m E. of the entrance to Grandstaff Range. (Road guard location)	Gate
A-14	FA 974 733	Across Sunshine Rd 10m W. of the entrance to Griswold Range. (Road guard location)	Gate
A-15	GA 021 799	Across entrance road to Buchanan Range.	Gate
A-15A	GA 021 798	Gate Across Good Luck Rd	Gate
A-15B	GA 022 796	Road guard position # 1 for Garnsey Rng Objective 'E' (Jamestown road SW corner of Engineer building)	Road Guard # 1
A-18	FA 993 828	Across Buckeye Rd 225m S. of its intersection with 1st Div Rd. and 50m E. of entrance to Duke Range	Gate
A-19	FA 973 825	Across entrance road to Patton Range 400m S. of its intersection with 1st Div Rd.	Gate
A-20	FA 974 827	Across entrance road to Dianda Range. 300m S. its intersection with 1st Div Rd.	Gate
A-22	GA 015 817	Across unnamed trail 50m N. of Brinson Range and 10m off Jamestown Rd.	Gate
A23	FA 983 756	Across Lumpkin Trail 200m E. of Griswold Range	Gate
A-23A	GA 005 748	On Lumpkin trail 50m NW of Objective 'E' on Garnsey Range.	Gate
A-23B	GA 005 747	Adjacent to A-23A gate on trail near intersection of Lumpkin trail	Install Gate
A-24	GA 015 811	10m inside entrance gate of Brinson Rng south of entrance road.	Gate
A-25	GA 016 789	Across fire break 10m W. of its intersection with Good Luck Rd.	Gate
A-26	GA 013 798	On L/S of Buchanan Range 50 meters W. of chow area across entrance to fire break.	Cable
A-27	GA 018 805	Across unnamed trl 175m N of intersection of Hourglass and Jamestown roads	Gate

BLOCK	GRID	LOCATION	TYPE
A-28	GA 012 774	20 meters off Yankee road on south side of Galloway range.	Gate
A-28A	GA 011 776	30 meters south of Range Tower	Gate
A-30	GA 026 758	Across fire break leading to Garnsey Range. 140m SW of Brann Flat Range.	Gate
A-30A	GA 027 758	Across trail leading to Garnsey Range 50m E. of A-30 Roadblock	Gate
A-31	GA 020 745	Across fire break leading to Brann	Cable
A-32	FA 989 724	Across entrance road to Kunzig Range.	Gate
A-33	FA 974 734	Across entrance to Griswold Range.	Gate
A-33A	FA 979 739	150 meters west of Target Systems bldg on trail leading to move to contact site	Gate
A-33B	FA 982 739	20m N of Target Sys bldg on trail running on west side of bldg.	Install Gate
A-34	FA 947 760	Across entrance to Minter Hill 700m E. of Oswichee Creek.	Gate
A-38	FA 952 816	Across fire break 300m down range of firing line on Red Cloud Range on L. side of range.	Cable
A-39	FA 956 822	Across unnamed trail 100m S. of bldgs on Buckner Range on L. side of range	Cable
A-40	FA 967 823	Across fire break 50m down range on the left side of Pierce Range.	Gate
A-41	FA 972 820	Across fire break located on the right side of the firing line on Patton Range.	Cable
A-42	FA 978 820	Across fire break located on the left side of the firing line on Patton Range.	Cable
A-43	FA 983 823	Across fire break located on the right side of	Cable
A-44	FA 986 823	Across fire break 100m E. of the 25m flat	Gate
A-45	FA 990 827	Across fire break located on the right side of the firing line on Duke Range.	Gate
A-45A	FA 991 829	Across Booker Breach site entrance road 200m past Duke Rng entrance gate	Gate
A-46	FA 984 832	Across unnamed trail 100m W. of the intersection of 1st Div Rd and Ivy Rd.	Gate
A-47	FA 990 833	Across unnamed trail 500m W. of the intersection with 1st Div & Buckeye Rd's	Gate
A-48	FA 995 827	Across fire break located on the right side of the firing line on Porter Range.	Cable
A-49	FA 998 827	Across fire break located on the left side of the firing line on Porter Range.	Cable
A-50	GA 000 830	Across unnamed trail 200m W. of entrance to Maertens Range.	Gate
A-51	GA 031 791	Barrier on Furman Rd	Barrier 1
A-52	GA 034 776	Barrier on Yankee Rd	Barrier 2
A-53	GA 035 776	Gate to Cole Range	Barrier 3
A-54	GA 046 749	Barrier off Lightning Rd on unnamed trail	Barrier 5
A-55	GA 057 759	Barrier off Lightning Rd on unnamed trail	Barrier 4



RECORD OF ENVIRONMENTAL CONSIDERATION (REC)



Date Submitted: 8/28/2012

EMD Number: 1224201

Project#: M6193,M6482,M
6191,M6854,M6
479,M6488

Project Title: Sniper Training

Description of proposed action:

During this block of instruction, students will familiarize and qualify with various sniper rifles. Each student will fire approximately 30 to 50 rounds of ammunition.

Project Location:

Maertens, Burroughs, Buchanan, Booker, Galloway,
Griswold

Amount, Description, Location of Disturbance/Digging:

None

Number of Personnel:

approx. 36 per class

Type of Ammunition:

5.56MM, 7.62MM,
.50CAL, 9MM Live

Number/Types of Trees:

None

Size of Project Area: Maertens 28.22,Burroughs
89.54,Buchanan 8.18,Booker
17.20,Galloway 132.27,Griswold
388.58Acres

Duration of Action:Start: 10/1/2012 Stop: 9/30/2013

Proponent: stacey.ballesteros 706-545-5677

Organization/Unit: Range Division

Number/Types of Vehicles:

Number of vehicles:varied

Types of vehicles:5Ton vehicle,HMMWV's,HMMWV Trailer,GSA vehicles,2.5T truck,FLA,4X4 truck,S10,WAT,MTV's,M77A2

Yes-Vehicles will be going off road.

What type of vehicles will be going off road:

DECISION: Concur with conditions

This Action is adequately covered in the Existing EIS titled: 'Ongoing Mission and Siting Activities, USAIC, FT.Bennig, GA.'

Training Involving LIVE FIRE, tracked vehicles, and off-road maneuvers has NO CATEX

REC APPROVED THROUGH 30 SEPTEMBER 2013

Natural Resources - RCW

Conditions:

Michael Barron (706 544 7080), 8/29/2012

Concur with conditions. See attached conditions. Note locations of red-cockaded woodpeckers on attached maps. Training restrictions apply. Unit commanders must make sure that all troops know the locations of restricted areas and understand these training restrictions. This is imperative since night training may occur. Boundaries are often hard to see at night, but this is no excuse for violations to occur. Two hour time restriction is for 2 hours once every 24 hour period. Note where digging may not occur. All trenches, fighting positions, etc must be filled in prior to leaving an area. There must be no cutting down or intentional destruction of any pine trees throughout the requested area(s). Units may fire on existing ranges but must make every effort to contain their firing to the established range footprints. Targets may not be moved from their current positions nor may new targets be established without approval via a separate 144R and a site visit with this office.

EMD Number: 1224201

UOR M8103, M6482, M6391, M6354, M6

Project Title: Sniper Training

CWA: Training

Leah Ropski (706 626 0492), 8/30/2012

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.

Hazardous Materials/Waste

Conditions:

Ted Williams (706 545 7579), 8/29/2012

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.

Contain and clean up any spill according to guidance provided by the Environmental Protection Management Branch.

Contact POC for additlional guidance for proper waste management.

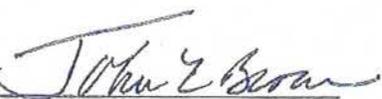
Noise

Conditions:

Ellis Leeder (706 545 2400), 8/29/2012

This is training operations that must be conducted. If there is any 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. In accordance with the Armys policy on environmental noise management, all efforts shall be made to minimize noise annoyances to the highest extent practicable with training operations without interfering with the proposed missions. Please follow the fly friendly program avoiding no fly zones. Please follow good smoke management practices not allowing smoke or dust to travel off installation boundary into public areas or roads. Please increase distance between vehicles when dust conditions are extreme, see Table 5-3. CS gas use should be utilized in designated areas only, contact Range Control for a listing of approved sites. If any assistance or a copy of MCoE Regulation 350-19 or the IONMP noise plan is needed for review, please feel free to contact Ellis Leeder at 706.545.2400 or email ellis.p.leeder.civ@mail.mil or visit the Range Control Website for the updated version of MCoE Regulation 350-19

Signature

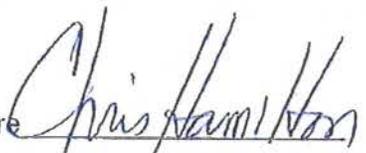


John E Brown
NEPA Program Manager

Date

31 AUG 2012

Signature



Christopher E. Hamilton, PhD

EPMB Chief

Date

31 Aug 12



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MANEUVER CENTER OF EXCELLENCE
1 KARKER STREET
FORT BENNING, GEORGIA 31905-5000

REPLY TO
ATTENTION OF
ATZB-SO

28 January 2013

MEMORANDUM FOR Commander, 198th IN Bde., Attn: MAJ William Kampf, Fort Benning, GA 31905

SUBJECT: 198th In Bde BRM/ARM Marksmanship Training with Reactive Steel Targets on Griswold Range Concept and Safety Review.

1. References.

a. 198th In Bde BRM/ARM Marksmanship Training with Reactive Steel Targets on Griswold Range, 04 January 2013.

b. Army Regulation 385-10, The Army Safety Program, 04 October 2011

c. Army Regulation 385-63, Range Safety, 19 May 2003

d. Department of the Army Pamphlet 40-501, Hearing Conservation Program, 10 December 1998

e. Department of the Army Pamphlet 385-10, Army Safety Program, RAR 19 January 2010

f. Department of the Army Pamphlet 385-30, Mishap Risk Management, RAR 01 February 2010

g. Department of the Army Pamphlet 385-63, Range Safety, RAR 12 May 2009

h. Field Manual 5-19, Composite Risk Management, August 2006

i. MCoE Regulation 350-19, Range and Terrain Regulation, 23 July 2010

2. Document received on 22 January 2013.

3. Non-Concur w/comment.

a. The engagement of steel target in any BRM/ARM activity is a non-POI driven event. Over time, Commanders have added steel targets to this training for the dramatic audio effect of shooting steel.

ATZB-SO

SUBJECT: 198th In Bde BRM/ARM Marksmanship Training with Reactive Steel Targets on Griswold Range Concept and Safety Review.

b. Concept paper, paragraph 6a(2), pg 3. The use of 5.56mm ammunition is prohibited by TECOM Safety Of Use Message (SOUM) 2-02, published 03 December 2002. The SOUM only allows the use of "Pistol M9; Pistol Cal .45; and the Service Shotgun M1014" on steel reactive targets.

c. Concept paper, paragraph 8, pg 3. The use of 5.56mm ammunition is prohibited by TECOM Safety Of Use Message (SOUM) 2-02, published 03 December 2002. The SOUM only allows the use of "Pistol M9; Pistol Cal .45; and the Service Shotgun M1014" on steel reactive targets.

d. Concept paper, paragraph 10, pg 4. When Reactive Steel Targets are used the stationary target must be canted forward twenty-degrees to produce the best angle of deflection with the most consistency and only with "Pistol M9; Pistol Cal .45; and the Service Shotgun M1014".

e. RMW, Block 6, pg 2. "Fratricide" initial and residual risks are rated as "MODERATE" and "LOW". Recommend that due to the nature of FRATRICIDE the risk be elevated to "EXTREMELY HIGH" in the initial assessment and to "HIGH" in the residual. This action will affect the overall risk in Block 13 to "HIGH".

4. Recommend that frangible ammunition be used to conduct this training or marking targets, which visually identify the puncture point for each round shot, are far safer. Shape targets with a variety of squares, triangles, circles, rectangles and other shapes are key way to conduct point target shooting skills without the hazard of steel jackets flying back in your direction.

5. Point of contact is Mr. Michael W. Risher II, MCoE/Fort Benning Safety Office, Comm. (706) 545-8278, Govt. Cell. (706) 604-7249, michael.w.risher.civ@mail.mil

Encl
TECOM SOUM 2-02


JILL E. CARLSON
Director, MCoE/USAG Safety



UNITED STATES MARINE CORPS
TRAINING AND EDUCATION COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
3300 RUSSELL ROAD
QUANTICO, VIRGINIA 22134-5027

IN REPLY REFER TO:
3570
C46R
03 DEC 2002

TECOM SAFETY OF USE MEMORANDUM 2-02

Subj: SAFETY OF USE MEMORANDUM; USE OF STEEL REACTIVE TARGETS
(SRT) AT CLOSE RANGES WITH SMALL ARMS

Ref: (a) MARADMIN 612/02
(b) MCO 3500.27A Operational Risk Management

Encl: (1) Drawing of Twenty-Degree Dispersion Area.
(2) Drawing of Multiple Stationary SRT When
Positioning SRT'S Parallel to the Firing Line.

1. Purpose. Per reference (a), this Safety Of Use Memorandum (SOUM) is intended to provide safety guidance and direction for USMC organizations training with Steel Reactive Targets (SRT) at close ranges (7 to 50 yards) with the following weapons: Pistol M9; Pistol Cal .45; and the Service Shotgun M1014. This Memorandum amplifies guidance provided in the MCO P3570.1_ series.

2. Capabilities. Approved and properly utilized SRT's provide effective, positive feedback for marksmanship training. SRT's provide a sense of realism, and can enhance overall marksmanship training.

3. Background. SRT's are currently being used on Marine Corps ranges without specific institutional guidance. SRT's have risk associated with them if they are not utilized properly or if improper steel is used. The guidance provided is based on empirical data collected from Marine Corps operational units and Federal Agencies.

4. Specifications and Safety Considerations. Insufficient steel hardness and improper use of SRT's may cause serious injury to personnel and/or damage to equipment.

a. Only SRT's with a certified Brennel hardness rating of 400 to 550 will be used for training by Marine Corps personnel.

(1) Manufacturers (commercial or organizational) of SRT's must provide a certificate of hardness to ensure the steel targets meet the minimum hardness rating of (AR 400). The certificate must remain on file as long as the targets are being

Subj: SAFETY OF USE MEMORANDUM; USE OF STEEL REACTIVE TARGETS
(SRT) AT CLOSE RANGES WITH SMALL ARMS

utilized by the installation. Steel with an abrasion resistant coating coupled with 500 Brinell hardness steel (AR 500) is considered optimum for safety and longevity of use.

(2) Homemade or unit constructed targets are not recommended due to inconsistency in design, functioning, and most importantly the uncertainty in steel quality or hardness. If homemade or unit constructed targets are used, the same criteria of steel hardness (listed above) must be met. The certification must be kept on file as long as the steel targets are being utilized.

b. Angle of deflection is defined as the perpendicular exit of bullet fragments from the target surface to the shooter. When a shooter is shooting directly at a target, the bullet splatter will angle off the target up to 20-degrees in all directions from the point of impact and travel up to 50 yards. 95% of all bullet fragments will exit the target within the 20-degree Dispersion Area as illustrated in enclosure (1). A stationary target with a twenty-degree forward cant (head forward of the body) produces the best angle of deflection with most consistency.

c. SRT's that are warped, dented, or cracked are considered unserviceable and will not be used. Extensively worn targets with dimples (slight surface depressions) that are 1/32" deep into the steel are also considered unserviceable and must be replaced. When the surface of the steel target is no longer flat and smooth, the targets provide an unpredictable splatter effect upon bullet impact.

d. Gimmick type targets like rotating Christmas Trees, or targets that flip back and forth, are not authorized because of the inability to control the angle of the target, and the angle of the splatter.

e. OSHA approved wrap-around impact resistant eyeglasses are mandatory. Long sleeve shirt and long trousers are recommended for all personnel.

f. Targets will not be shot at distances closer than 7 yards for pistol and 10 yards for shotgun ("00" buckshot only).

g. 12 Gauge Slug ammunition will not be fired at steel targets at distances of 50 yards or closer.

Subj: SAFETY OF USE MEMORANDUM; USE OF STEEL REACTIVE TARGETS (SRT) AT CLOSE RANGES WITH SMALL ARMS

5. Responsibilities

a. The Commander is ultimately responsible for the safety of all training. In the case of SRT training, he will be assisted by a certified SRT RSO.

b. Commanders of installations to be used for training with SRT's will conduct an Operational Risk Assessment (deliberate) in accordance with reference (b) prior to authorizing their use.

c. Installation Commanders will publish Standard Operating Procedures (SOP) to address the inherent hazards associated with shooting on SRT's.

d. Installation Commanders will establish a Range Safety Officers' (RSO) program that specifically addresses SRT safety and training requirements.

e. Upon completion of the RSO program, Installation Commanders will certify Marine Staff Sergeants (and above), or other service equivalent, as Steel Reactive Target Range Safety Officer (SRT RSO).

f. The duties of the SRT 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 USMC organizations and personnel use SRT's that have a certified Brennel hardness rating of 400 to 550, and the SRT's are serviceable and operate as designed.

(b) Ensure that only USMC procured ammunition with a Department of Defense Identification Code (DoDIC) are used on the SRT's.

(c) Ensure that all personnel on the range and within 50 yards of the firing line wear wrap-around eye protection.

(d) Place targets on soft sandy-type soil or place an absorbing material (sand box) in front of the target to absorb the splatter, and prevent it from ricocheting off the ground. If more than one portable target is to be used, the targets will be set in a fashion so that the splatter from one target will not ricochet off the next. Each target must be

Subj: SAFETY OF USE MEMORANDUM; USE OF STEEL REACTIVE TARGETS
(SRT) AT CLOSE RANGES WITH SMALL ARMS

placed with the direction of fire and the angle of deflection taken into consideration.

(e) When multiple stationary SRT's are in a line, careful consideration of the 20-degree Dispersion Area must be taken into account. The number of shooters on the firing line may have to be limited at closer distances to keep all personnel out of the 20-degree Dispersion Area as illustrated in Enclosure (2).

(f) Ensure all targets are adjusted to fall with minimal bullet impact. Swinging and rotating targets must move freely and operate as intended.

(g) Ensure all personnel not shooting remain 50 yards behind the firing line. The RSO will remain directly behind the shooter(s) during firing.

(2) During Firing

(a) Ensure that qualified medical personnel and appropriate medical equipment are available during all training exercises.

(b) Ensure all personnel remain clear of the 20-degree Dispersion Area from each target.

(c) Ensure targets are refaced with paint only. "Target slicking" is prohibited (applying grease or oil to the target face).

(d) Ensure portable SRT's do not move or rotate during training, which will change the 20-degree Dispersion Area(s) of the targets.

(e) Ensure that a MINIMUM safe engagement distance(s) from the muzzle to the SRT is established and maintained for each weapon system used. (See 4g above)

(f) Ensure the SRT remain adjusted to operate properly upon impact.

(3) After Firing

(a) Reface SRT's with a coat of paint and lubricate all moving parts and mechanisms.

Subj: SAFETY OF USE MEMORANDUM; USE OF STEEL REACTIVE TARGETS
(SRT) AT CLOSE RANGES WITH SMALL ARMS

(b) Inspect SRT's for wear and serviceability.

6. Applicability. This SOUM is USMC specific and applicable to the USMC total force.

7. Cancellation. This SOUM will remain in effect until it is cancelled or updated by this office.

8. Point of Contact. Point of contact for this SOUM is CW04 J. L. Pereira, Range Management Officer, TECOM (C46R) at DSN 278-6999 or commercial (730) 784-6999.



T. S. JONES

Distribution:

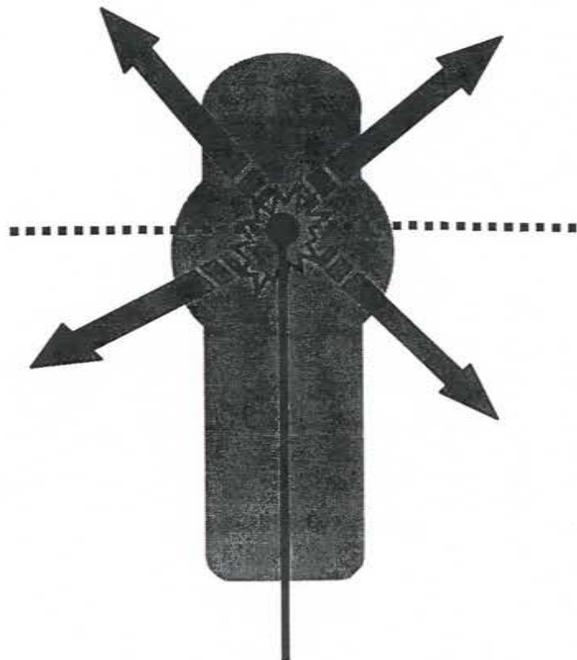
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COMMARFORLANT NORFOLK VA	CG MCB CAMP BUTLER JA
COMMARFORRES NEW ORLEANS LA	CG MCRD ERR PARRIS ISLAND SC
CG MCCDC QUANTICO VA	MCSFBN NORFOLK VA
CG TECOM QUANTICO VA	MCMWTC BRIDGEPORT CA
CG MCRC QUANTICO VA	HQBN HQMC ARLINGTON VA
CG MCRSC KANSAS CITY MO	MARBKS WASHINGTON DC
COMCABEAST MCAS CHERRY PT NC	BIC JACKSONVILLE, FL
COMMARCORSYS COM QUANTICO VA	MCAS BEAUFORT SC
COMMARCORMATCOM ALBANY GA	MCAS IWAKUNI JA
COMMARCORLOGBASES ALBANY GA	MCAS FUTENMA JA
COMMARCORBASES JAPAN	MCAS CAMP PENDLETON CA
COMTRNGCMD QUANTICO VA	MCAS YUMA AZ
CG MCB CAMP PENDLETON CA	MCAF TUSTIN CA
CG MCB CAMP LEJEUNE NC	MCAS NEW RIVER NC
CG MCRD/WRR SAN DIEGO CA	MCSA KANSAS CITY MO
CG MCAS MIRAMAR SAN DIEGO CA	MCLB BARSTOW
CG MCBH KANEOHE BAY HI	
CG MAGTF TRNGCOM TWENTYNINE PALMS CA	

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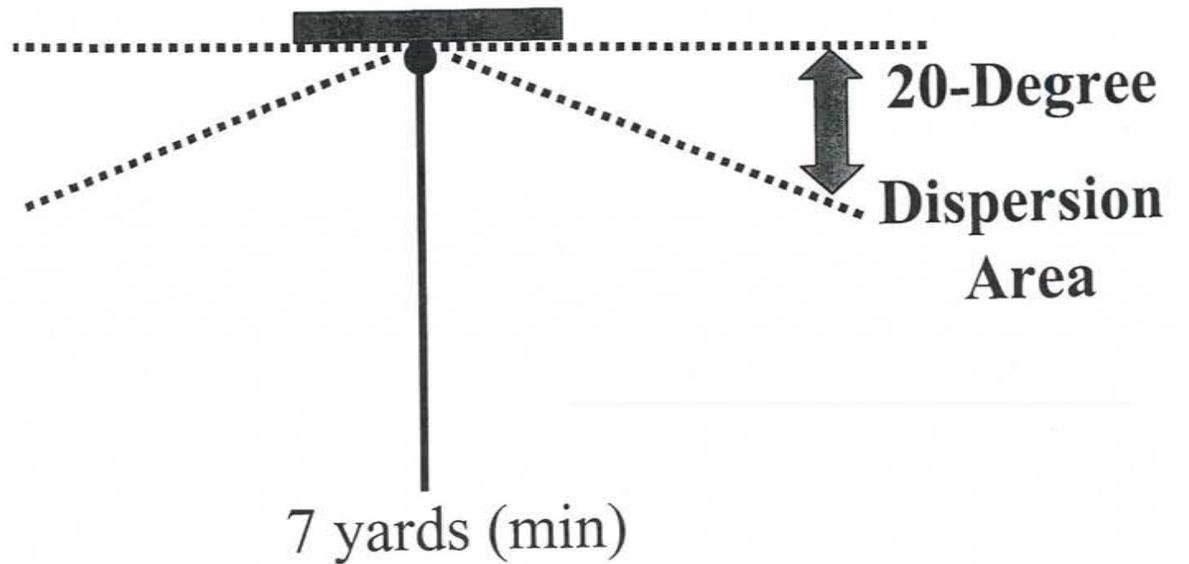
TRADOC FT MONROE VA

Steel Target 20 Degree Dispersion Area

Front View

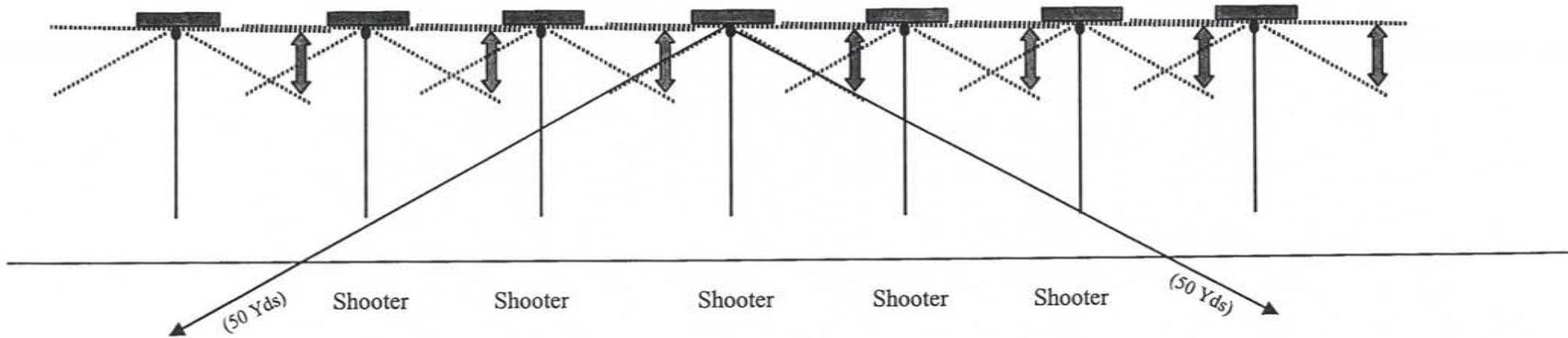


Top View



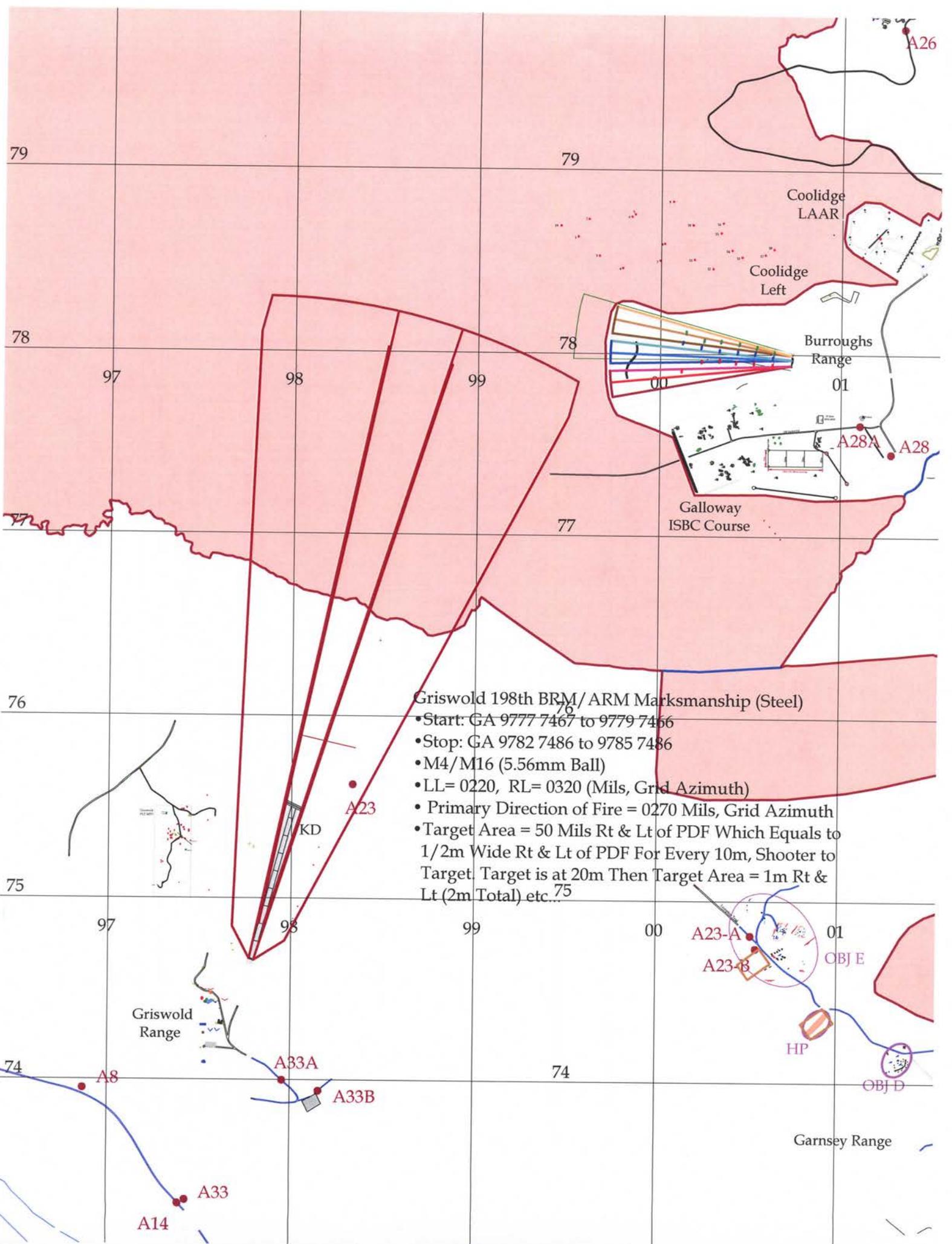
Steel Target 20 Dispersion Area Consideration for Multiple Stationary SRT's Parallel to the Firing Line

Top View



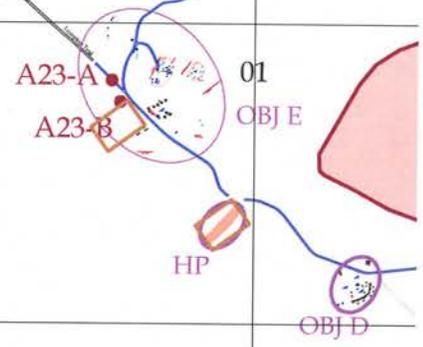
Firing Line
7 yards (min)

Where the 20 degree dispersion area crosses the firing line, shooters could be hit by fragmentation from targets to the left and right. Careful consideration of the 20 degree safety zone must be taken into account for each target and each firing position.



Griswold 198th BRM/ ARM Marksmanship (Steel)

- Start: GA 9777 7467 to 9779 7466
- Stop: GA 9782 7486 to 9785 7486
- M4/M16 (5.56mm Ball)
- LL= 0220, RL= 0320 (Mils, Grid Azimuth)
- Primary Direction of Fire = 0270 Mils, Grid Azimuth
- Target Area = 50 Mils Rt & Lt of PDF Which Equals to 1/2m Wide Rt & Lt of PDF For Every 10m, Shooter to Target. Target is at 20m Then Target Area = 1m Rt & Lt (2m Total) etc...



Griswold Range

Garnsey Range