

Expires 27 SEP 2016

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: 1 September 2015
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5. SUBJECT:
Safety Waiver, Steel Targets

6. ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER: SFC Kizziah, Sniper Course Land NCO, 544-6505	7. DIRECTOR'S/COMMANDER'S SIGNATURE: William, L. Thigpen, COL, AR 316th BDE Commander
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<input checked="" type="checkbox"/> SIGNATURE	<input checked="" type="checkbox"/> APPROVAL	<input type="checkbox"/> INFORMATION
<input checked="" type="checkbox"/> SGS	<input type="checkbox"/> DCoFS	<input type="checkbox"/> GC CSM
<input type="checkbox"/> GC	<input type="checkbox"/> CIG	<input checked="" type="checkbox"/> CoFS
<input type="checkbox"/> USAIS CSM	<input type="checkbox"/> USAARMS CSM	<input type="checkbox"/> MCoE CSM
<input type="checkbox"/> SA	<input type="checkbox"/> DCG-NG	<input type="checkbox"/> Comdt, IN School
<input type="checkbox"/> Comdt, AR School	<input checked="" type="checkbox"/> CG	

1. PURPOSE: To obtain approval from the MCoE Commanding General for use of Steel Targets.

2. RECOMMENDATION: Commanding General signs the Steel Target waiver.

3. DISCUSSION:
REFERENCES: AR 385-63, Range Safety, 30 Jan 2012, DA PAM 385-63, Range Safety, 16 Apr 2014, MCoE Reg. 350-19, Range and Terrain Reg. 17 Jul 13, MCoE Steel Target Policy Memorandum 385-63-12, 3 Dec 2014.

- Steel target firing will be on Burroughs, Ruth, Ware, Brooks, and Griswold Ranges with current approved packets by Range Operations
- Waive the use of steel targets and the ballistics associated with its use as contractor data that was used to build SDZ's has not been tested or validated by ARDEC and is classified as a deviation from established range standards and procedures as identified in DA PAM 385-63 and Army Regulation 385-63.
- The above reference (AR 385-63) delegates waiver authority to General Officers commanding TRADOC installations to reduce dimensions of Surface Danger Zones (SDZ) when terrain, artificial barriers, other barriers or controlling factors make smaller surface danger zones safe.

Approved 9/28/15
GEN to COS
24 Sep 15

4. THIS DOCUMENT IS AUTHORED BY:

8. COORDINATION/APPROVAL

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
Range Ops	Concur	Briggs 25 Sep 15			
Safety	Concur w/c	Baldwin 21 Sep 15			
DPTMS	Concur	Reid 24 Sep 15			
G3					
Ab Safety	Concur	Alvin Bunch 17 Sept 15			

STAFF REMARKS: (Command Group Use Only)

APPROVAL AUTHORITY

APPROVED:

DISAPPROVED:

NOTED:



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

REPLY TO
ATTENTION OF:

28 SEP 2015

IMBE-PL

MEMORANDUM FOR Director, Plans, Training, Mobilization & Security, U.S. Army Garrison, Fort Benning, GA 31905

SUBJECT: Range Waiver – Use of Steel Targets Sniper Live Fire Training on Multiple Ranges (Brooks, Burroughs, Ruth, and Ware)

1. References:

- a. Army Regulation 385-63, Range Safety, 16 April 2014.
- b. DA PAM 385-63, Range Safety, 16 April 2014.
- c. TRADOC Regulation 385-2, TRADOC Safety Program, 06 December 2011.
- d. MCoE Regulation 350-19, Range and Terrain, 1 March 2013.

2. Discussion: The US Army Sniper School employs steel targets while conducting various POI live fire training events to allow for realistic training and immediate feedback. The following types of military and commercial ammunition are utilized to support Program of Instruction (POI) training requirements: (1) Ball (5.56mm); (2) Ball (7.62mm); (3) 300. WIN MAG; and (4) Ball (9mm pistol). The commercial data that was used to build the SDZs has not been tested or validated by the U.S. Army Armament Research, Development and Engineering Center (ARDEC). In accordance with ALARACT 004/2014, M855A1 and M80A1 ammunition will not be used to engage steel targets.

3. Area to be waived: Waive the use of steel targets and supporting commercial ballistics data.

4. Controlling Factors: The US Army Sniper School will adhere to the conditions and factors published in MCoE Policy Memorandum 385-63-12, Installation Use of Steel Targets in Marksmanship Training, 03 December 2014.

5. Deliberate Risk Assessment Worksheet (DRAW) factors were considered in the development of the Range Safety Waiver. The unit will be responsible for having the DRAW for this range, completed and signed by appropriate personnel prior to firing on this range.

IMBE-PL

SUBJECT: Range Waiver – Use of Steel Targets Sniper Live Fire Training on Multiple Ranges (Brooks, Burroughs, Ruth, and Ware)

6. This waiver is valid for the period of one year when used in conjunction with live fire range scenario and risk management worksheet. In the event of an accident arising from the use of the waived condition, this waiver is invalid until reinstated by this headquarters.

7. The point of contact is Mr. Tesch, Operations Officer, Range Division, Directorate of Plans, Training, Mobilization and Security, (706) 544-6385.

A handwritten signature in black ink, appearing to read "Austin S. Miller". The signature is fluid and cursive, with a large loop at the end.

AUSTIN S. MILLER
Major General, USA
Commanding



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

21 September 2015

MEMORANDUM FOR Director, 1-29th IN Bn, Attn: SFC Anthony Kizziah, 10308 13th Armor Regiment Road, Bldg 5142, Fort Benning, GA 31905

SUBJECT: 1-29th IN Bn (Sniper) Steel Deviation on Burroughs, Ruth, Ware, Brooks and Griswold Range and DRAW Safety Review

1. References.

- a. Army Regulation 385-10, The Army Safety Program, 27 November 2013.
- b. Army Regulation 385-63, Range Safety, 30 January 2012.
- c. Department of the Army Pamphlet 40-501, Hearing Conservation Program, 10 December 1998.
- d. Department of the Army Pamphlet 385-10, Army Safety Program, RAR 19 January 2010.
- e. Department of the Army Pamphlet 385-30, Mishap Risk Management, 02 December 2014.
- f. Department of the Army Pamphlet 385-63, Range Safety, 16 April 2014.
- g. Army Techniques Publication 5-19, Risk Management, 14 April 2014.
- h. MCoE Regulation 350-19, Range and Terrain Regulation, 01 March 2013.

2. Document received on 17 September 2015.

3. Concur w/comments.

a. DRAW, Block 2, pg. 1. Dates must be annotated with a start and end date, DD/MM/YYYY – DD/MM/YYYY.

b. DRAW, Blocks 6 & 9, pg 2. "Negligent Discharge", recommend the Initial and Residual Risk Levels be elevated to "HIGH" and "MODERATE" to more accurately reflect the probability and severity of ingesting high velocity objects into the body and the purpose of the weapon system being handled.

ATZB-SO

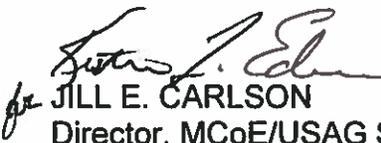
SUBJECT: 1-29th IN Bn (Sniper) Steel Deviation on Burroughs, Ruth, Ware, Brooks and Griswold Range and DRAW Safety Review

c. DRAW, Block 7, pg. 4. "Struck by lightning", recommend that you discuss, plan, and rehearse a mass causality exercise using this scenario.

d. DRAW, Block 7, pg. 5. "Bullet Ricochet", recommend strict abidance of Policy Memorandum 385-63-12 in the selection and placement of steel objects downrange for shooting.

e. DRAW, Block 7, pg. 5. "Civilian Weapons", recommend adding that civilian weapons will not be present or used on any range where USASC students are present.

4. 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


JILL E. CARLSON
Director, MCoE/USAG Safety

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION U.S. Army Sniper Course POI Live Fire Operations	2. DATE (DD/MM/YYYY) 08/17/2015
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3. PREPARED BY		
a. Name (Last, First Middle Initial) Privette, Nicholas P.	b. Rank/Grade CPT/O3	c. Duty Title/Position Company Commander
d. Unit B Co, 1-29 IN, 316 CAV	e. Work Email nicholas.p.privette.mil@mail.mil	f. Telephone (DSN/Commercial (Include Area Code)) 706-545-7507
g. UIC/CIN (as required) WIDX2	h. Training Support/Lesson Plan or OPORD (as required) See Block 12e	i. Signature of Preparer PRIVETTE.NICHOLA S.PETER.1274822089 <small>Digitally signed by PRIVETTE.NICHOLAS.PETER.1274822089 DN: cn=U.S. Government, ou=D-01, ou=PKI, ou=USA, o=PRIVETTE.NICHOLAS.PETER.1274822089 Date: 2015.09.08 17:13:23 -0400</small>

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	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> -	M9 / M110 / M2010/ M107 Field Fire (Day/ Night Stationary and Moving targets)	Loss of Range/Situational Awareness	M	1. Read, review, and disseminate the risk assessment prior to training. 2. Ensure a certified CLS member, CLS bag, and a dedicated evacuation vehicle are available at the range. 3. Identify Soldiers (using colored tape and by name roster) with medical problems who have the potential to impact training to include minor illness, allergies, previous hot and cold weather injuries, or environmental sensitivities. 4. Review evacuation and reporting procedures for serious incidents prior to start of training. Establish plan to evacuate Soldiers with allergic reactions, anyone within 25m of lightning strikes, snake bites, or anyone showing symptoms beyond the Combat Life Saver's ability to treat.	How: AR 385-63 DA PAM 385-10 ATP 5-19 MCoE REG 350-19 MCoE REG 40-14 MCoE PM 385-10-9 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors CLS Individual	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"/> -		Negligent discharge	M	1. All weapons will be cleared prior to leaving the firing line by each buddy team and range safety. 2. Certified Combat Life Savers will be on site to treat any injuries that may occur from an accidental or negligent discharge. 3. Soldiers will place their M9s on safe when the pistol is in their holster, or when changing magazines. The weapon will only be on fire when the pistol is pointed down range to engage a target. 4. All weapons will be on safe unless pointed down range in preparation to engage a target 5. Weapons will be unloaded when not on firing line	How: DA PAM 385-10 MCOE REG 350-19 ATP 5-19 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors USASC Students Range Safeties CLS	L
<input type="checkbox"/> + <input type="checkbox"/> -		Soldier injured from shell casing or other debris from discharged weapon	M	1. Soldiers will be in teams of two to double check all safety procedures. No weapon will be fired until all personnel have proper PPE and proper distance intervals are established between shooter and spotter. 2. Soldiers in the "Mover Pit" will wear proper PPE at all times, whether they are holding a target or not.	How: DA PAM 385-10 ATP 5-19 1-29 IN RANGE SOP RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors USASC Students	L
<input type="checkbox"/> + <input type="checkbox"/> -		Soldier loss of hearing due to no hearing protection	M	1. Hearing protection will be utilized by all personnel when within 30 meters of firing line. 2. Hearing protection will be issued on Day 1 of the course and extra will be kept on the range.	How: AR 385-63 DA PAM 385-10 ATP 5-19 MCOE REG 350-19 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors USASC Students	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"/> -		Heat injuries	H	1. Soldiers will consume fluids with electrolytes during breaks of training and as needed IOT maintain hydration. Range safeties and buddy teams will monitor all personnel for signs of overheating or dehydration. 2. Uniform modifications will be enforced as needed. 3. Proper work to rest ratios will be enforced based on current heat category. 4. "Man Down" rehearsals utilizing ice sheets will be conducted once a week during summer months. (April - October) 5. The temperature will be monitored hourly utilizing kestrel devices which will be calibrated annually. 6. Soldiers will consume all meals and supplements.	How: DA PAM 385-10 TRADOC 350-29 MCOE REG 40-14 FB FORM 7 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors USASC Students	M
<input type="checkbox"/> + <input type="checkbox"/> -		Cold weather injuries	M	1. Range safeties and buddy teams will monitor all personnel for signs of cold weather injury. 2. Soldiers will consume fluids with electrolytes during breaks of training and as needed IOT maintain hydration. 3. Burn barrels will be utilized as needed in authorized locations at the range IAW MCOE REG 350-19. 4. Proper work to rest ratios will be enforced based on current temperature. 5. Students with prior cold weather injuries will be identified and monitored. Students will be identified with colored tape and by name roster. 6. Temperature will be monitored when below 60 degrees. 7. Soldiers will consume all meals and supplements	How: AR 385-63 DA PAM 385-10 ATP 5-19 TRADOC REG 350-29 MCOE REG 350-19 MCOE REG 40-14 Who: OIC RSO RANGE SAFETIES USASC Instructors USASC Students	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"/> -		Animal / insect bites	M	1. Soldiers with allergies will be identified prior to the start of training. All wildlife hazards will be identified and briefed to students prior to training.	How: AR 385-63 DA PAM 385-10 ATP 5-91 MCOE REG 350-19 FB Form 7 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors	L
<input type="checkbox"/> + <input type="checkbox"/> -		Struck by lightning	M	1. Obtain weather briefing from Air Force Forecasters at (706) 545-3824 or 5628. 2. All training will cease upon receipt of severe weather alert from Range Control or if lightning can be seen within five miles and personnel will be directed to nearest safe area. 3. Notify range control, Battalion, and Company of lightning related incident. 4. All personnel on the range will be briefed and know the severe weather procedure. Severe weather plan will be rehearsed quarterly. 5. Severe weather safe areas will be briefed and identified prior to training.	How: DA PAM 385-10 ATP 5-19 MCOE REG 350-19 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors	L
<input type="checkbox"/> + <input type="checkbox"/> -		Fire at ammunition point or on the range.	M	1. No smoking will be allowed within 50 feet of the ammunition point. 2. There will be two, serviceable 10lb Class ABC fire extinguishers available at the ammunition point. 3. All ammunition will be separated by DODIC.	How: AR 385-63 DA PAM 385-10 DA PAM 385-64 ATP 5-19 MCOE REG 350-19 RANGE SAFETY BRIEF Who: OIC RSO USASC Instructors Ammunition NCO	L

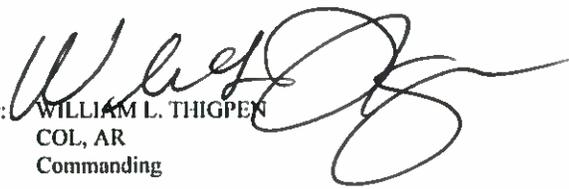
	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
<input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> -		Bullet ricochet	M	<ol style="list-style-type: none"> All lanes will be inspected for ricochet hazards before training and all Soldiers will be briefed on hazards. Lanes will be cleared of ricochet hazards prior to training. If a hazard is not able to be cleared that lane will not be used for training. Cease fire will be enforced if aircraft (fixed wing, rotary, or UAS) fly over range. Soldiers will only fire at targets in their lane and will not engage anything that may deflect the trajectory of their rounds. Ear and eye protection will be worn at all times when personnel are within 30 meters of the firing line. Only authorized targets will be shot. 	How: AR 385-63 DA PAM 385-10 ATP 5-19 MCOE REG 350-19 RANGE SAFETY BREIF Who: OIC RSO USASC Instructors USASC Students	L
		Bullet or target fragmentation in KD target pit	H	<ol style="list-style-type: none"> A Sniper Instructor will always supervise as the target pit NCO. All Soldiers will wear ear and eye protection in the target pit. Only authorized targets will be shot in accordance with TC 3-22.10 and USASC SOP. 	How: TC 3-22.10 MCOE REG 350-19 RANGE SAFETY BREIF Who: OIC RSO USASC Instructors Commander	M
	Moving from one firing point to another	Tripping Hazards	M	<ol style="list-style-type: none"> The areas of the range where Soldiers will be moving will be inspected and hazards removed prior to going hot, and before each firing iteration. At least one range safety will guide the sniper buddy teams to each firing point to ensure they go to the correct location and travel a safe route. 	How: AR 385-63 DA PAM 385-10 ATP 5-19 MCOE REG 350-19 RANGE SAFETY BREIF Who: OIC RSO USASC Instructors USASC Students	L
		Civilian weapons	M	<ol style="list-style-type: none"> There will be no civilian weapons fired under any Sniper Course POI range packet. 	How: Current range packet restrictions Who: OIC RSO USASC Instructors Commander	L

10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):

EXTREMELY HIGH
 HIGH
 MEDIUM
 LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Range OIC and RSO will enforce all safety measures IAW the approved range packet.


 Concur: WILLIAM L. THIGPEN
 COL, AR
 Commanding

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK
 Approve
 Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority
Reed, Kenneth J.	LTC/O5	Battalion Commander	

e. Additional Guidance:
 Supports: Lessons 071-FRBLA002, 071-FRBLC019-44, and 071-FRBLD005

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/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS



REPLY TO
ATTENTION OF

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

IMBE-PL

Policy Memorandum 385-63-12

3 DEC 2014

MEMORANDUM FOR SEE DISTRIBUTION

Subject: Installation Use of Steel Targets in Marksmanship Training

1. REFERENCES:

- a. AR 385-63, Range Safety, 30 Jan 12.
- b. DA Pamphlet 385-63, Range Safety, 16 Apr 14.
- c. DA Training Circular 25-8, Training Ranges, 20 May 10.
- d. TRADOC Regulation 385-2, TRADOC Safety Program, 6 Dec 11.
- e. USMC Training and Education Command (TECOM) Safety of Use Memorandum 2-02, 3 Dec 12.
- f. MCoE Regulation 350-19, Range and Terrain Regulation, 1 Mar 13.

2. PURPOSE: To prescribe the safety guidance and procedures for the use of steel targets in basic and advanced marksmanship training on Fort Benning ranges and training facilities for the following weapon systems: 9mm and .45 caliber pistols; 12-gauge shotguns; 5.56mm rifles; and 7.62mm/.30 caliber sniper rifles. This policy does not include procedures for use of the .50 caliber sniper rifle.

3. BACKGROUND: The guidance provided is based on empirical data collected from US Army installations (Forts Bragg, Campbell, and Hood), the US Army Asymmetric Warfare Group (AWG), US Marine Corps (USMC), US Army Special Operations Command (USASOC), and various Federal agencies (FBI). The use of steel targets was introduced on Fort Benning by the AWG in 2007, and has been fully integrated into marksmanship training. Non-reactive (targets that do not move) steel targets (legacy term: "iron maidens") provide the shooter with instant feedback on target engagement. However, steel targets increase the chance of injury to the shooter from bullet fragmentation ("splash back") if the shooter engages too close to the steel target or if the steel target is not maintained or replaced when pitted or damaged. Targets made of poor quality steel also increase the chance of splash back or spalling. When using approved abrasion resistant steel and properly positioned, steel targets provide effective feedback in both basic and advanced marksmanship training, provide a sense of

realism, and enhance overall marksmanship learning outcomes. Training Circular (TC) 25-8 specifies standard range design with integrated placement of steel ("iron maidens") (Enclosure 1). The US Army Armament Research, Development and Engineering Center (ARDEC) has not tested or validated the use of steel targets or the safety certification of accepted steel target types. The TRADOC TCM-Live has not approved a Life Cycle Management Plan (LCMP) to procure, inspect, or replace steel targets within units; Commanders currently procure with available operational funds. The TRADOC has not developed/published Army capabilities development documents (CDDs), Soldier training plans (STRAPs), or doctrine to support training support packages/lesson plans for use of steel targets.

4. POLICY:

a. The Senior Commander (SC)/Commanding General (CG) for the Maneuver Center of Excellence (MCoE) and Garrison Commander (GC) are responsible for the safe conduct of training operations within the limits of Fort Benning. **The SC/CG will approve all requests for use of steel targets on Fort Benning ranges and training facilities.** This policy is not designed to restrict the use of steel targets; intent is to ensure maximum regard for Soldier and environmental safety and the safe conduct of scheduled training. Training units desiring to use steel targets will submit request(s) for waiver in accordance with AR 385-63, DA Pam 385-63 and MCoE Regulation 350-19 (Enclosure 3).

b. Steel targets will be constructed of abrasion resistant AR 500 steel (also known as High-Hardness Armor (HHA) plate that is approved for use within the Department of the Army). The "AR 500" is a steel mill designation that is equal to a Brinell hardness scale of ~500 (actual scale can range from 477 to 534). All targets will be a minimum 3/8" thick (recommended 1/2" thick). The AR 500 steel is tempered through hardened wear resistant grades of abrasion resistant steel plate and used for severe impact. This is the industry standard for metal targets. Homemade or unit constructed targets are not authorized due to inconsistency in design, functioning, and most importantly the uncertainty in steel quality or hardness. Commercial vendors for steel targets must provide a certificate of hardness to ensure the steel targets meet the minimum hardness rating of AR 500. The certificate must remain on file with the using unit and the Garrison's Range Operations as long as the targets are being utilized on the installation. MCoE Safety office will conduct periodic inspections of steel target serviceability and procedures.

c. Steel targets will be engaged with the shooter squared and facing the target. When conducting military training, all shooters and all personnel on the range within 10 meters of the firing line will wear the Army-standard issue safety standard (MIL-PRF-31013) impact resistant eyeglasses, body armor, ballistic helmet, ear protection, and gloves. When participating in marksmanship competitions under the supervision of the Army Marksmanship Unit (AMU), all shooters and all personnel on the range within 10 meters of the firing line will wear Occupational Safety and Health Administration (OSHA)

and American National Standards Institute (ANSI) certified safety standard (ANSI Z87.1+) impact resistant eyeglasses and ear protection.

d. No engagements will be fired at oblique angles or parallel to the target. Angle of deflection is defined as the perpendicular exit of bullet fragments from 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 meters. Empirical evidence suggests 95 percent of all bullet fragments will exit the target within the 20 degree dispersion area (Enclosure 2).

e. Non-reactive targets will be placed at a slight downward angle to direct the round's fragments towards the ground. A stationary target with a 20-degree forward cant (head forward of the body) produces the best angle of deflection with most consistency.

f. Actual engagements will be single rounds only for TRADOC POI training. Fort Benning's tenant units will be considered for single round, controlled pairs, or double-tap engagements. If more than one steel target is to be used, the target will be set in a fashion so that the splatter from one target will not ricochet off the next. Each target must be placed with the direction of fire and the angle of deflection taken into consideration. The number of shooters on the firing line will be limited to keep all personnel out of the 20-degree dispersion area, and minimum meters radius exclusion zone.

g. Automatic fire engagements are not authorized for any steel target engagements.

h. Steel target engagements will not be closer than 10 meters with pistol and shot gun ammunition; 100 meters with 5.56mm ammunition; and 150 meters with 7.62mm ammunition. Shotgun 12-gauge slug ammunition will not be fired at steel targets at distances of 50 meters or closer. Only US Army procured ammunition with a Department of Defense Identification Code (DODIC) will be used to engage steel targets; the exception is 300 Win. Mag (min. 400 meters) and 338 Lapua (min. 200 meters) for sniper training. Units will not use steel targets for .50 caliber sniper marksmanship due to high probability for target damage and/or penetration.

i. Steel core, steel jacket, and armor piercing ammunition will never be used to engage steel targets at any distance. As the new 5.56mm M855A1 Enhanced Performance Round (EPR) is fielded, this type ammunition will not be used to engage steel targets. These types of ammunition will penetrate AR 500 steel targets and render the target unserviceable at ranges up to 300 meters. Once a target is damaged, it will be classified as unserviceable and disposed/discarded in a manner that renders the steel target unusable for live marksmanship training.

IMBE-PL

Subject: Installation Use of Steel Targets in Marksmanship Training

j. Steel targets that have excessive surface pitting (slight surface depressions that are 1/32" or 0.8 mm deep into the steel), have round penetrations, or are warped, dented, or cracked will be classified as unserviceable and will not be used.

k. When integrating steel targets on a range with existing targetry (movers and/or stationary), the Range Safety Officer (RSO) must ensure that all steel targets being used are behind any existing target location at a distance not closer than a 10 meters radius exclusion zone in relation to other mechanical targets and/or range infrastructure. By ensuring steel targets are behind current targetry, this prevents damage from splash back to both the target box and any electrical systems being used on the range.

l. The RSO will inspect all steel targets for serviceability and placement of all steel targets prior to use by the training unit. The RSOs will ensure targets are refaced with flat-based spray paint only [Note: The use of excessive paint masks target flaws and renders target inspections incomplete]. "Target slicking" is prohibited (applying grease or oil to the target face). The RSOs will ensure that minimum safe engagement distance (s) from the muzzle to the steel target is established and maintained for each weapon system used. Empirical evidence suggests that impact velocity less than 2,600 feet per second will minimize target damage.

m. The Commander is ultimately responsible for the safety of all training. The RSOs will be certified by the Commander when using steel targets. Commanders will establish Standard Operating Procedures (SOPs) and Composite Risk Assessment to address the inherent hazards associated with shooting steel targets.

5. SUPERSESSION: This policy supersedes MCoE Policy Memorandum 385-63-10, 25 June 2014, same subject.

6. PROPONENT: Mr. Douglas M. Greenway, Installation Range Manager, (706) 545-4619/3542, e-mail douglas.m.greenway.civ@mail.mil.

FOR THE COMMANDER:



PATRICK J. DONAHOE
Colonel, Armor
Chief of Staff

3 Encls
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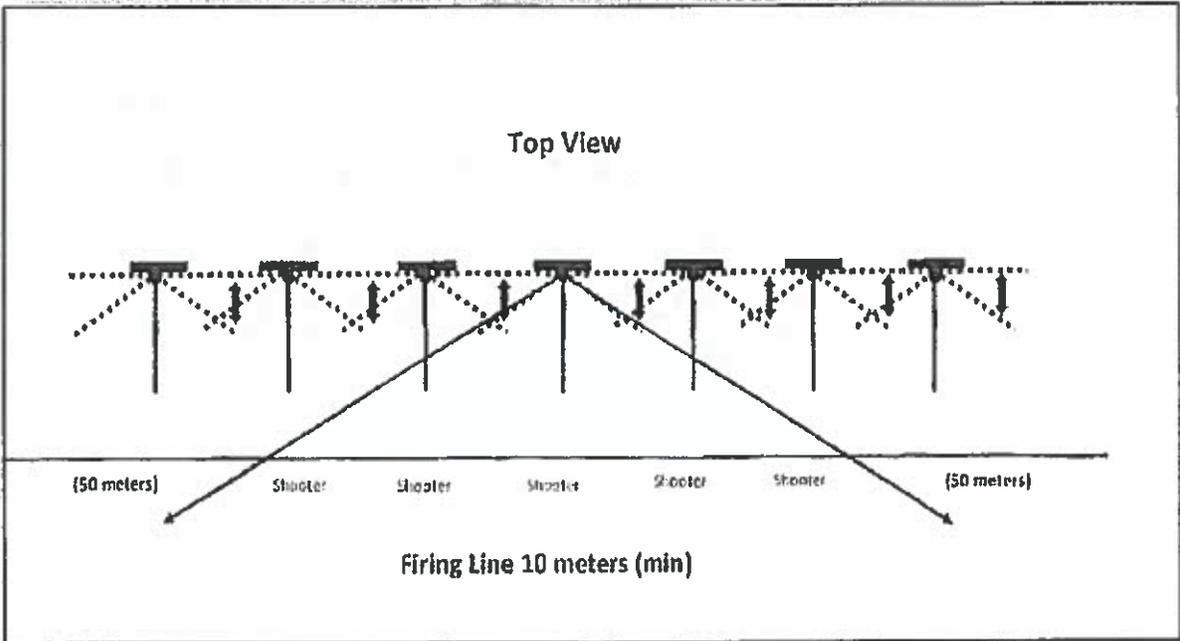
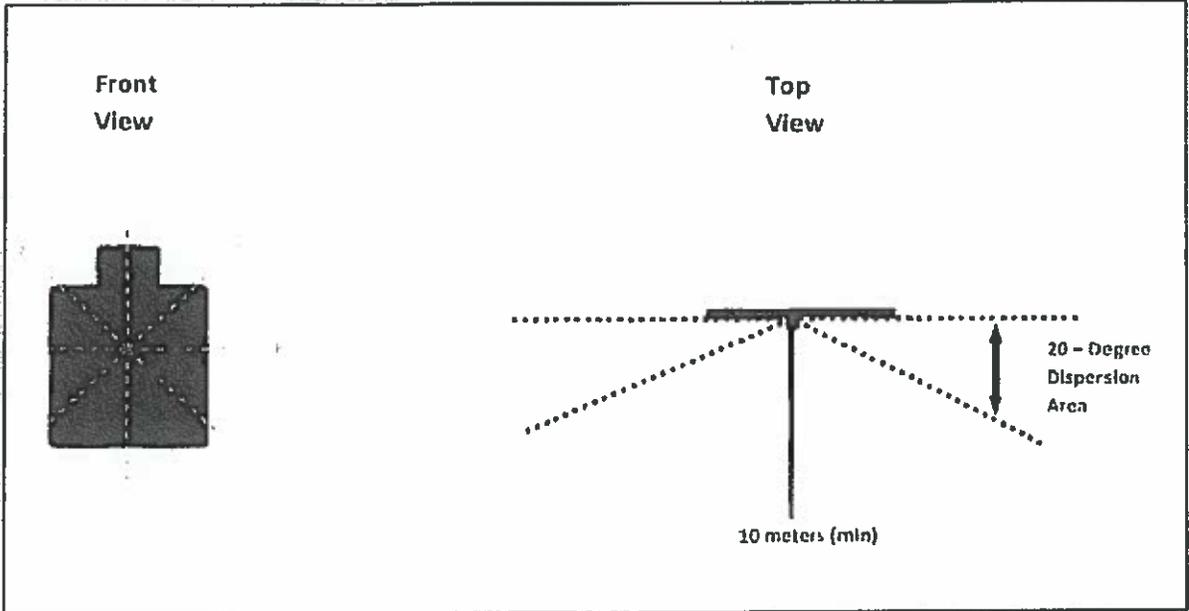
Subject: Installation Use of Steel Targets in Marksmanship Training

Enclosure 1: TC 25-8 Standard Range Design with Integrated "Iron Maidens" (Steel targets)

Type Range	Code	Distance - Firer to Steel Target	Total Steel Targets
Qualification Training Range (QTR)	FCC 17809	-- 350m to 575m -- 900m to 1000m	20
Automated Sniper Field Fire (SFF) Range	FCC 17812	-- 325m to 575m -- 900m to 1000m	20
Heavy Sniper Range	FCC 17829	-- 300m to 600m -- 845m to 1775m	10
Multipurpose Machinegun (MPMG) Range	FCC 17833	-- 375m to 600m	20

Note: TC 25-8 specifies a standard range design for all new & renovated ranges. The ranges above integrate the use of steel targets for various weapons systems and represent distances from the shooter to the target to be integrated in all future ranges. None of Fort Benning's current ranges are designed for the integration of steel targets.

Enclosure 2: Steel Target Placement & Dispersion Area



Enclosure 3: AR 385-63 Deviation Limitations (Waiver Requirements)

- Deviation from range standards and procedures
 - A deviation, as discussed in this regulation/order, is the temporary departure from established range standards and procedures. An example would be reducing SDZ dimensions when terrain, artificial barriers, or other compensating factors which mitigate risks to make smaller SDZs safe. Guidelines for preparing a range safety deviation are contained in DA Pam 385-63.
 - Army Senior Commanders in the grade of O-7 and above may authorize deviations.
- Deviation limitations. Deviations are limited to:
 - Reducing SDZ dimensions when terrain, artificial barriers, or other compensating factors make smaller SDZs safe.
 - Modifying prescribed firing procedures to increase training realism (such as accepting increased risk when the risks have been incorporated into an approved SDZ) as appropriate for the proficiency of participants.
 - Allowing personnel not authorized within the SDZ (per DA Pam 385-63), unless prohibited.
 - Approved deviations will be effective for 1 year or less. Expired deviations may be renewed by the respective approval authority provided conditions cited in the original deviation have not changed.
 - Any accident or incident occurring under an approved deviation will cause automatic termination of the deviation until an investigation is completed and the deviation revalidated by the respective approving authority.
 - Conflicts regarding level of risk determination will be resolved by the commander holding the deviation authority for the highest level of risk deemed in conflict.
 - For live-fire training operations conducted under an approved deviation by nonresident units, the host installation commander/senior commander must approve training at a host installation.