

Exp Date 28 APR 2015 JOP/ML

TRANSMITTAL, ACTION AND CONTROL

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

2. IN SGS: 24 Apr 14	3. OUT SGS: 28 Apr 14	4. DATE PREPARED: 8 April 2014
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Use of Steel Targets during Live Fire Exercises (Only on Ranges approved through Range Operations).

OFFICE SYMBOL/PHONE NUMBER: CPT, AORG-SC-TO, 706-545-3354	7. DIRECTOR'S/COMMANDER'S SIGNATURE: Colin P. Tuley, COL, AORG-DCO, 706-545-3354
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SIGNATURE APPROVAL INFORMATION

SGS Editor Garrison CSM USAIS CSM USAARMS CSM MCoE CSM CDID

GC CIG Cofs SA Comdt, IN School Comdt, AR School CG

PURPOSE: To obtain approval from the MCoE Commanding General for use of Steel Targets during Live Fire Exercises (Only on Ranges approved by Range Operations).

RECOMMENDATION: MCoE Commanding General approves waiver

DISCUSSION:

REFERENCE: AR 385-63, Range Safety, 30 Jan 12. DA PAM 385-63, Range Safety, 30 Jan 12. TRADOC Reg 385-2, TRADOC Safety Program 06 Dec 11. MCoE Policy Memorandum 385-6-11, MCoE Steel Target Policy Memorandum 385-63-7, 27 Mar 13.

Steel targets firing will be on Ranges with current approved packet by Range Operations.

While this training utilizing steel targetry has been conducted without incident at other CONUS, TRADOC, and FORSCOM installations (including Fort Benning, GA) and with the understanding that there is no formalized standard evaluation process associated with these targets. Risk Management factors were considered in the development of steel target waiver.

The above reference (TRADOC Reg 385-2) delegates waiver authority to General Officers commanding TRADOC installations to use dimensions of Surface Danger Zones (SDZ) when terrain, artificial barriers, other barriers, or controlling factors make small danger zones safe.

SIR: Recommend approve. Waiver for 75th Rangers to shoot steel on all approved/safed Benning Ranges. Required for AFRORGEN deployment training. No issues. Fully staffed. Y/R Bob Brunel

THIS DOCUMENT IS AUTHORED BY: CPT SPADE, 706-545-3354

COORDINATION/APPROVAL

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
Key	CONCUR	HR HOLDING 4/16/14			
Range Opns	CONCUR	Bill S. 21 16 April 14			
ty	CONCUR	Official M. White 22 April 14			
MS	CONCUR	K. Williams 4/23/14			
	CONCUR	LTC HILMES 4/23/14			

FF REMARKS: (Command Group Use Only)
Returns to G3 when complete ORIGINAL to Range Opns COPY to 15th REGT

APPROVAL AUTHORITY

APPROVED:

DISAPPROVED:

NOTED:



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MANEUVER CENTER OF EXCELLENCE
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FORT BENNING, GEORGIA 31905-4500

28 APR 2014

IMSE-BEN-PLT-O

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

SUBJECT: Waiver for Use of Steel Targets by 75th Ranger Regiment on Fort Benning Ranges Approved Through Range Division Operations

1. References:

- a. Army Regulation 385-63, Range Safety, 30 Jan 12.
 - b. Training and Doctrine Command (TRADOC) Regulation 385-2, TRADOC Safety Program, 23 Jan 09.
 - c. Maneuver Center of Excellence (MCoE) Policy Memorandum 385-63-7, Use of Steel Targets in Marksmanship Training, 27 Mar 13.
 - d. Memorandum, 75th Ranger Regiment, 31 Jan 13, subject: Endorsement for The Use of Steel Targets.
2. Training to be conducted: The use of steel targets by 75th Ranger Regiment while conducting various live fire training events (Close Quarters Marksmanship, Advanced Marksmanship Training, Marksmanship, etc...) allows for realistic training and immediate feedback to meet the required standards of mission readiness.
3. Area to be waived: Surface Danger Zone located to the left and right of each target is a 20 degree splatter zone which contains 95 percent of ricochets.
4. Controlling Factors: MCoE Policy Memorandum 385-63-7, Use of Steel Targets in Marksmanship Training, 27 Mar 13, will be followed.
-
5. Composite Risk Management factors were considered in the development of the Range Safety Waiver. Units are responsible for having the Composite Risk Management Worksheet for this range completed, signed by appropriate personnel, and submitted to Range Operations prior to firing on this range.
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.

IMSE-BEN-PLT-O

SUBJECT: Waiver for Use of Steel Targets by 75th Ranger Regiment on Fort Benning Ranges Approved Through Range Division Operations

7. Point of contact is CPT Kyle Spade, Regimental Training Officer, at 706-545-3354 or e-mail: kyle.spade@ahqb.soc.mil.

A handwritten signature in black ink, appearing to read 'H. R. McMaster', with a long horizontal flourish extending to the right.

H. R. MCMASTER
Major General, USA
Commanding



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
75TH RANGER REGIMENT
FORT BENNING, GEORGIA 31905-5843

AORG-SC-TO

06 March 2014

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

SUBJECT: Range Safety Waiver for Use of Steel Targets on Approved Fort Benning Ranges by 75th Ranger Regiment

1. REFERENCES:

- a. AR 385-63, Range Safety, 30 January 2012.
 - b. DA PAM 385-63, Range Safety, 30 January 2012.
 - c. TRADOC Regulation 385-2, TRADOC Safety Program, 6 December, 2011.
 - d. MCoE Regulation 350-19, Range and Terrain Regulation, 17 July 2013.
 - e. USASOC Regulation 385-1, Safety: Accident Prevention and Reporting.
 - f. MCoE Policy Memorandum 385-63-7, subject: Use of Steel Target in Marksmanship training, 27 March 2013.
 - g. 75th Ranger Regiment memorandum, subject: Endorsement for Use of Steel Targets, 31 January 2013
2. Area to be waived on all approved Fort Benning ranges in direct support to 75th Ranger Regiment training.
- a. Area #1: Surface Danger Zones (SDZ) located 20 degrees to the left and right of each steel target up to 50 meters. Empirical evidence suggests 95 percent of all bullet fragments will exit the target within the 20 degree dispersion area.
 - b. Area #2: Surface Danger Zones (SDZ) located in a 140 degree dispersion fan from the front of the steel target up to 100 meters with 5.56 ammunition and 150 meters with 7.62mm ammunition. Empirical evidence suggests 5 percent of all bullet fragments will exit within the 140 degree dispersion area.

3. CONTROLLING FACTORS:

- a. Area #1:
 - 1) Steel targets will be engaged with the shooter squared and facing the target. No engagements will be fired at oblique angles or parallel to target. Angle of deflection is defined as the perpendicular exit of the bullet 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 for the point of impact and travel up to 50 meters.
 - 2) Steel targets will be placed in a slightly downward angle to direct round's fragments toward the

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SUBJECT: Range Safety Waiver for Use of Steel Targets on Approved Fort Benning Ranges by 75th Ranger Regiment

ground. A stationary target with a twenty-degree cant (head forward of the body) produces the best angle of deflection with most consistency.

b. Area #2:

1) All shooters and all personnel on the range within 10 meters of the firing line and/or within the minimum safe distances will wear Army-standard issue safety standard (mil-prf-31013) impact resistant eyeglasses, body armor, ballistic helmet, ear protection, and gloves. Soldiers not on the Firing Line will be located in assembly area outside the minimum safe distances. TCP's and /or barriers will be employed to prevent unauthorized entry into the Surface Danger Zone, Safety Zone of firing area.

2) Steel target engagements will not be closer than 10 meters with pistol and shot gun ammunition; 100 meters with 5.56mm ammunition; 150 meters with 7.62mm ammunition. Shotgun 12-gauge slug ammunition will not be fired at steel targets at a distance of 50 meters or closer. Soldiers not on the Firing Line will be located in an assembly area outside the minimum safe distances.

3) 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 meter 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.

4) The RSO will inspect all steel targets for serviceability and placement of steel targets prior to use by training unit. RSOs will ensure that targets are refaced with flat-based spray paint only. The use of excessive paint masks target flaws and renders target inspections incomplete. RSOs will ensure that minimum safe engagement distance (s) from muzzle to the steel target is established and maintained for each weapons system used.

c. All areas:

1) Steel targets will be constructed of abrasion resistant AR 500 steel. "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 (recommend 1/2 " thick). Commercial vendors for steel targets must provide a certificate of hardness to ensure the steel meets the minimum hardness rating of AR 500. The certificate must remain on file with the using unit and the Garrison Range Operations as long as the targets are being utilized on the installation.

2) Homemade or unit constructed targets are not authorized due to the inconsistency in design, Functioning, and the uncertainty in steel quality or hardness.

3) Actual engagement will be a single round only. Automatic fire engagements are not authorized for any steel target engagements.

4) Steel core, steel jacket and armor piercing ammunition will never be used to engage steel targets at any distance. Only US Army procured ammunition with a Department of Defense Identification Code (DODIC) will be used to engage steel targets.

5) Steel targets that have excessive surface pitting (slight surface depressions that are 1/32" or

AORG-SC-TO

SUBJECT: Range Safety Waiver for Use of Steel Targets on Approved Fort Benning Ranges by 75th Ranger Regiment

0.8mm deep into the steel), have round penetrations or are warped, dented, or cracked will be classified as unserviceable and will not be used.

6) 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.

4. Risk management factors for this waiver are integrated in the unit's Risk Management Worksheet. The residual risk level is reduced to LOW; therefore, the associated risks as detailed in this memorandum are waived.

5. This waiver will be valid for one year. In the event of an accident arising from the use of a range under these waived conditions, this waiver becomes invalid until reinstated by this headquarters.

6. The point of contact CPT Kyle Spade, Regimental Training Officer, 706-545-3354, kyle.spade@soc.mil.



COLIN P. TULEY
COL, IN
Deputy Commander



DEPARTMENT OF THE ARMY
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1 KARKER STREET
FORT BENNING, GEORGIA 31905-5000

ATZB-SO

22 April 2014

MEMORANDUM FOR Commander, 75th Ranger Regiment, Attn: SFC Adam Baig, Fort Benning, GA 31905

SUBJECT: 75th Ranger Regiment Steel Target Deviation Safety Review

1. References.

a. 75th Ranger Regiment Steel Target Deviation (06 March 2014) and RMW (24 February 2014).

b. Army Regulation 385-10, The Army Safety Program, 23 November 2013

c. Army Regulation 385-63, Range Safety, 30 January 2012.

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, 30 January 2012

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

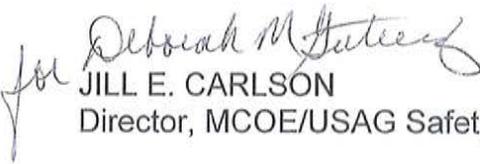
i. MCoE Regulation 350-19, Range and Terrain Regulation, 01 March 2013

2. Concur.

ATZB-SO

SUBJECT: 75th Ranger Regiment Steel Target Deviation Safety Review

3. 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


for JILL E. CARLSON
Director, MCOE/USAG Safety

COMPOSITE RISK MANAGEMENT WORKSHEET

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

1. MSN/TASK STEEL TARGET WAIVER	2a. DTG BEGIN 01APR 2014	2b. DTG END 01 APR 2015	3. DATE PREPARED (YYYYMMDD) 20140224
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4. PREPARED BY			
a. LAST NAME SPADE	b. RANK CPT	c. POSITION RS3 TO, 75th RANGER REGIMENT	

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?
1	Round ricochets off a steel target and strikes a training attendee or safety	M	-RSO will ensure targets are positioned with flat steel canted downward (-20) degrees to reduce backward ricochet	L	RSO and OIC will inspect target positioning prior to each live fire iteration IAW 75th and FBGA standards	-Range OIC/RSO as well as Firing Position Safeties will ensure proper target placement	
			-Rangers will only engage targets from a defined firing line/point, at no less than seven (7) meters with 9mm pistol ammunition, twenty five (25) meters 5.56mm, or (cont. below)		All Live Fire Exercises will be validated by Chain of Command and RSO/OIC	RSO/OIC, Safeties and Unit CoC will supervise each Ranger as he is engaging designated targets	
			one-hundred (100) meters with 7.62mm			-For Company and Platoon Level Live Fire Exercises, the Battalion Commander, Designated Field Grade	
			-Rangers will only engage targets IAW Regimental SOP for use with Steel Targets and the Fort Benning Form 350-19 scenario that is used in conjunction with the Range Packet			Officer, or Battalion Sergeant Major will validate the Live Fire Scenarios and observe the blank or dry fires to	
						validate safety and observe the live fire to ensure safe execution	
			-The Range OIC/RSO will inspect all targets to ensure extensively worn targets with dimples (slight surface depressions) that are 1/32" deep are considered unserviceable (Continued)				

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 BRUNKOW, COREY A.	b. RANK LTC	c. DUTY POSITION Operations Officer, 75th Ranger Regiment	d. SIGNATURE  9 MAR 2014

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?
	(Continued) - Round ricochets off a steel target and strikes a training attendee or safety		-OIC, RSO, and Unit CoC will enforce disciplined fire-control techniques; BURST or Automatic firing is not Authorized.		OIC/RSO/Unit CoC will ensure Rangers are briefed and adhere to fire control measures	Ranger Leaders at all levels, Range OIC/Safety	
			-RSO will ensure that there are no mechanical targets or other range infrastructure within the ten (10) meter radius exclusion zone around the target and ensure targets are set at oblique or perpendicular angles to the shooter		All Live Fire Exercises will be validated by Chain of Command	CoC Validates, Range OIC/Safety Inspects	
			-Targets will be emplaced IAW manufacturer's data sheets		All Live Fire Exercises will be validated by Chain of Command	CoC Validates, Range OIC/Safety Inspects	
			-All personnel within the Safety Zone will wear Body Armor, Ballistic Helmet, Ballistic Eye Protection, and Gloves while steel targets are engaged		All Rangers will wear PPE IAW Regimental SOP during Marksmanship Training / Inspections by CoC	Ranger Leaders at all levels, Range OIC/Safety	
			-Rangers not on the Firing Line will be located in an assembly area outside the Safety Zone		All Live Fire Exercises will be validated by Chain of Command	CoC Validates, Range OIC/Safety Inspects	
			-TCPs and/or barriers will be employed to prevent unauthorized entry to the Safety Zone or Firing Area		All Live Fire Exercises will be validated by Chain of Command	CoC Validates, Range OIC/Safety Inspects	
			-RSO will ensure the target arrays are not within twenty (20) degrees of the splatter zone of adjacent targets IOT minimize ricochet injury risk		All Live Fire Exercises will be validated by Chain of Command	CoC Validates, Range OIC/Safety Inspects	
			-Prior to firing, RSO will brief Rangers on lateral limits of the range and all other safety aspects, to include proper protective uniform		OIC/Range Safety Briefings prior to training and inspections throughout training.	Ranger Leaders at all levels, Range OIC/Safety	



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REPLY TO
ATTENTION OF

Policy Memorandum 385-63-7

IMBE-PLT-R

27 MAR 2013

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Use of Steel Targets in Marksmanship Training

1. REFERENCES:

- a. AR 385-63 MCO 3570.1C, Range Safety, 30 January 2012.
- b. DA Pam 385-63, Range Safety, 30 January 2012.
- c. DA Training Circular (TC) 25-8, Training Ranges, 20 May 2010.
- d. TRADOC Regulation 385-2, TRADOC Safety Program, 6 December 2011.
- e. USASOC Regulation 385-1, USASOC Safety Program, 23 April 2010.
- f. USMC Training and Education Command Safety of Use Memorandum 2-02, 3 December 2002.
- g. MCoE Regulation 350-19, Installation Range and Terrain Regulation, 23 July 2010.

2. PURPOSE: To prescribe the safety guidance and procedures to allow the use of steel targets in basic and advanced marksmanship training on ranges and training facilities of Fort Benning, Georgia, 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 and steel targets.

3. BACKGROUND: The use of steel targets was introduced on Fort Benning by the U.S. Army Asymmetric Warfare Group in 2007, and has been fully integrated into marksmanship training. Non-reactive (targets that do not move) steel targets (legacy term was "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 that is 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 25-8 specifies standard range design with integrated placement of steel (iron maidens) (enclosure 1). U.S. Army Armament Research, Development, and Engineering Center (ARDEC) has not

IMBE-PLT-R

Subject: Use of Steel Targets in Marksmanship Training

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, Soldier training plans, or doctrine to support training support packages/lesson plans for use of steel targets. Steel targets, as used today across the Army, simply offer another means to obtain that feedback and increase the training level of Soldiers as they prepare for combat.

4. POLICY: The guidance provided is based on empirical data collected from U.S. Army installations (Forts Bragg, Campbell, and Hood), the U.S. Army Asymmetric Warfare Group, U.S. Marine Corps, U.S. Army Special Operations Command (USASOC), and various Federal agencies (FBI). The following procedures must be followed to ensure the safety of Soldiers in training when using steel targets.

a. Steel targets will be constructed of abrasion resistant AR 500 steel (also known as High-Hardness Armor 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 inch thick (recommended 1/2 inch 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. The MCoE Safety office will conduct periodic inspections of steel target serviceability and procedures.

b. 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, all shooters and all personnel on the range within 10 meters of the firing line will wear Occupational Safety and Health Administration and American National Standards Institute (ANSI) certified safety standard (ANSI Z87.1+) impact resistant eyeglasses and ear protection.

c. 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).

IMBE-PLT-R

Subject: Use of Steel Targets in Marksmanship Training

d. 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.

e. Actual engagements will be single rounds only for TRADOC Program of Instruction 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.

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

g. 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 U.S. Army procured ammunition with a Department of Defense Identification Code will be used to engage steel targets; the exception is 300 Win. Mag (minimum of 400 meters) and 338 Lapua (minimum of 200 meters) for sniper training. Units will not use steel targets for .50 caliber sniper marksmanship training due to high probability for target damage and/or penetration.

h. 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 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. 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.

i. Steel targets that have excessive surface pitting (slight surface depressions that are 1/32 inch 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.

j. 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 meter 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.

k. The RSO will inspect all steel targets for serviceability and placement of all steel targets prior to use by the training unit. The RSO will ensure targets are refaced with flat-based spray

IMBE-PLT-R

Subject: Use of Steel Targets in Marksmanship Training

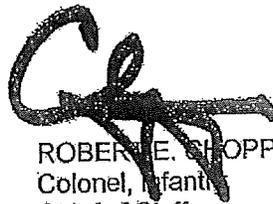
paint only [*Note: The use of excessive paint masks target flaws and renders target inspections incomplete*]. "Target slicking" is prohibited (applying grease or oil to the target face). The RSO will ensure that minimum safe engagement distance(s) from the muzzle to the steel target is established and maintained for each weapon system used. Empirical evidence suggests that impact velocity less than 2,600 feet per second will minimize target damage.

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

5. APPLICABILITY. This memorandum provides guidance that applies to all ranges on Fort Benning, Georgia when using steel targets within the Fort Benning Range/Training Complex. Given that (1) ARDEC has not tested or validated the use of steel targets or the ballistics associated with its use, and (2) current use is based on empirical evidence, the use of steel targets is classified as a deviation from established range standards and procedures; as such, only the installation Senior Commander/CG, MCoE, may authorize deviations (enclosure 3). Training units desiring to use steel targets will submit request(s) for waiver(s) in accordance with AR 385-63, DA Pam 385-63, and MCoE Regulation 350-19.

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

FOR THE COMMANDER:



ROBERT E. SHOPPA
Colonel, Infantry
Chief of Staff

3 Encls

1. TC 25-8 Standard Range Design with Integrated "Iron Maidens" (Steel Targets)
2. Steel Target Placement and Dispersion Area
3. AR 385-63 Deviation Limitations (Waiver Requirements)

DISTRIBUTION:

ADMIN L, GSM/SGM, MSC DCO, and MCoE BN GDRs Lists

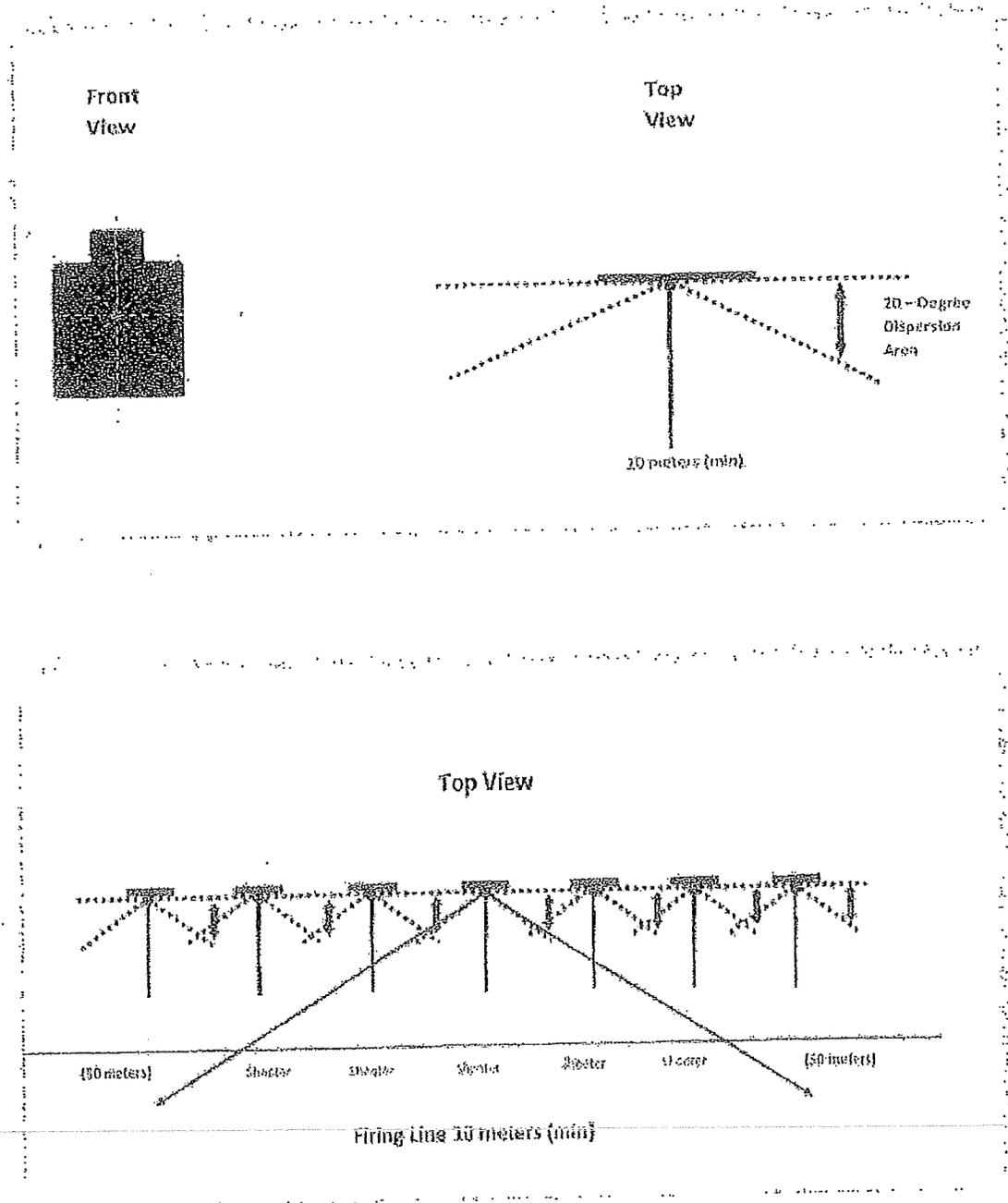
Enclosure 1: TC 25-8 Standard Range Design with Integrated "Iron Maidens" (Steel Targets)

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 and 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.

Encl 1

Enclosure 2: Steel Target Placement and Dispersion Area



ENCL 2

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 one 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.

ENCL 3