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COVERSHEET FB FORM 26-R-E, JAN 08

TAB 1 SAFETY WAIVER MEMORANDUM

TAB 2 AUTHORITY TO WAIVE SAFETY CRITERIA

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TAB 4 RISK MANAGEMENT WORKSHEET

TAB 5 75TH RANGER REGIMENT SOP FOR USE OF STEEL



UNCLASSIFIED

TRANSMITTAL, ACTION AND CONTROL

SGS LOG:	IN SGS:	OUT SGS:	DATE PREPARED: 26 JUNE 2009
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SUBJECT
75th RANGER REGIMENT RANGE SAFETY WAIVER, EASLEY & MCANDREWS RANGES

ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER CPT THOMAS LEONARD / (706) 626-2764	DIRECTOR'S /COMMANDER'S SIGNATURE James L. Mingus, COL, IN, Commanding
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<input checked="" type="checkbox"/> SIGNATURE	<input checked="" type="checkbox"/> APPROVAL	<input type="checkbox"/> INFORMATION
<input checked="" type="checkbox"/> SGS	<input checked="" type="checkbox"/> Dep CofS	<input type="checkbox"/> Garrison CSM
<input checked="" type="checkbox"/> GC	<input checked="" type="checkbox"/> CofS, USAIC	<input type="checkbox"/> USAIS CSM
	<input type="checkbox"/> USAIC CSM	<input checked="" type="checkbox"/> G3
	<input checked="" type="checkbox"/> DCG	<input checked="" type="checkbox"/> CG

PURPOSE:

To obtain the Commanding General's approval and signature on the Easley & McAndrews Ranges Safety Waiver.
 (ENCLOSURE 1)

RECOMMENDATION:

That each agency listed review for supportability and comment back NLT the indicated Suspense.

DISCUSSION:

- a. Easley Range will be used exclusively to conduct Train-The-Trainers, Qualifications, Training, and Operations.
- b. McAndrews Range is a known distance range used by the 197th Infantry Brigade to conduct known distance firing for ITB, which has a POI priority IAW USAIC Reg 210-4.
- c. Range Control Survey Branch, using submitted Fort Benning Form 210-4-3-R, (Firing/Nonfiring Data Form) for Easley & McAndrews Ranges, inspected the range to ensure the range was in compliance with DA PAM 385-63 and AR 385-63.

CONTINUED ON NEXT PAGE:

C = CONCUR
 C/W/C = CONCUR WITH COMMENT
 NC = NONCONCUR (comment required)
 C/DEF = CONCUR BY DEFAULT

Failure to respond by the suspense date implies concurrence.

S: COB 10 JULY 2009 **COORDINATION/APPROVAL**

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
SURVEY	CONCUR	BOLDING			
RANGE DIV	CONCUR	WEEKLEY			
SAFETY	C/W/C	RISHER			
DOT	CONCUR	SELLERS			

STAFF REMARKS: (Command Group Use Only)	APPROVAL AUTHORITY: APPROVED: DISAPPROVED: NOTED:
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TRANSMITTAL, ACTION AND CONTROL

SGS LOG: _____ IN SGS: _____ OUT SGS: _____ DATE PREPARED: 26 JUNE 2009

SUBJECT: **75th RANGER REGIMENT RANGE SAFETY WAIVER, EASLEY & MCANDREWS RANGES**

ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER: **SFC JANET SOKOLOWSKI / (706) 545-7174** DIRECTOR'S /COMMANDER'S SIGNATURE: *James L. Mingus, COL, IN, Commanding*

SIGNATURE APPROVAL INFORMATION
 SGS Dep CofS Garrison CSM USAIS CSM USAIC CSM G3
 GC CofS, USAIC DCG CG

PURPOSE:

To obtain the Commanding General's approval and signature on the Easley & McAndrews Ranges Safety Waiver.
(ENCLOSURE 1)

RECOMMENDATION:

That each agency listed review for supportability and comment back NLT the indicated Suspense.

DISCUSSION:

- a. Easley Range will be used exclusively to conduct Train-The-Trainers, Qualifications, Training, and Operations.
- b. McAndrews Range is a known distance range used by the 197th Infantry Brigade to conduct known distance firing for ITB, which has a POI priority IAW USAIC Reg 210-4.
- c. Range Control Survey Branch, using submitted Fort Benning Form 210-4-3-R, (Firing/Nonfiring Data Form) for Easley & McAndrews Ranges, inspected the range to ensure the range was in compliance with DA PAM 385-63 and AR 385-63.

CONTINUED ON NEXT PAGE:

C = CONCUR
 C/W/C = CONCUR WITH COMMENT
 NC = NONCONCUR (comment required)
 C/DEF = CONCUR BY DEFAULT
 Failure to respond by the suspense date implies concurrence.

S: COB 10 JULY 2009 COORDINATION/APPROVAL

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
SURVEY	CONCUR	<i>B.D. [unclear] 1 Jul 09</i>			
RANGE DIV	C	<i>76. [unclear] 2 July 09</i>			
SAFETY	CONCUR	<i>[unclear] 8 Jul 09</i>			
BT/DTMS	CONCUR	<i>[unclear] 8 Jul 09</i>			

STAFF REMARKS: (Command Group Use Only) **APPROVAL AUTHORITY:**

APPROVED: _____

DISAPPROVED: _____

NOTED: _____

d. CONTINUED: During the inspection, it was determined that a portion of the surface danger zone for Easley Range extends across McAndrews Range, Hibbs Range, and a portion of Phillips Range. It also extends onto the down range area of Parks Range. Also it was determined that the surface danger zone of McAndrews Range extends onto Easley Range, Hibbs Range, and a portion of Phillips Range including the down range area of Parks Range. It was also determined due to the hand and factory loads fired on Easley and McAndrews Ranges that the right side corner surface danger zone crosses Sunshine Road and into the Chattahoochee River.

THE CONTROLLING FACTORS ARE AS FOLLOWS: Easley and McAndrews Ranges are Known Distance training ranges used by the 75TH Ranger Regiment to conduct Basic Rifle Marksmanship, Preliminary Rifle Instruction, and Advanced Rifle Marksmanship through the repetition of highly accurate rifle fire to downrange targets simulating a tactical environment. With the use of basic iron sights, lasers, and advanced optics, Rangers use alternate firing, assisted, and unassisted positions to engage targets as close to 75 yards or as far as 600 yards, during grouping, zeroing, and multiple target live fire exercises. During these exercises, all aspects of marksmanship are considered and incorporated from the downrange feedback of obstacles such as limited time, limited visibility, and known or unknown distances. All considerations of safety from the Pits Area to the firing points are controlled deminishing any risk and maximizing training time.

All weapons used on Easley and McAndrews Ranges have been inspected by a 75th Ranger Regiment Armorers, field tested, and serviced, to perform with minimal malfunctions. In the event that a malfunction should take place, all Rangers are knowledgeable on immediate action, remedial action, and Cease Fire. On Easley and McAndrews Ranges, all protective equipment including eye and hearing protection while on the firing line is mandatory. Targets used in training are paper, steel, or cardboard mounted in a target frame or target carriage located in the pits area. The OIC/RSO will also ensure targets will be positioned at the base of the berm to avoid Rangers from shooting over the top of the berm compartment. The 75th Ranger Regiment has taken precautions to ensure the proper use of all steel targets is enforced. The OIC/RSO ensures the target positioning will not violate the Left and Right limits to include the set up and removal of all targets, scenarios, and equipment used downrange. The steel targets will be pointed downward to reduce ricochet prescribed in the 75th Ranger Regiment SOP. Rangers will engage targets from a safe distance in IAW the limitations described in the 75th Ranger Regiment SOP for use of Steel Targets (Encl 5) and the Fort Benning Form 210-4-3-R scenario. Prior to all exercises, all personnel will observe right/left limits, overall range layout, target area, and a safety briefing.

There is a 12-foot berm on both the extreme right and left lateral limits on Easley Range. There is also a berm, concrete walls, trees, and brush between

Easley, Hibbs, Phillips, and Parks Ranges. In addition, there is a berm between Easley and McAndrews Ranges. Based upon the type of firing conducted on Easley and McAndrews Ranges, height of the berm, the statistical probability of any rounds fired from McAndrews Range impacting on Easley, Hibbs, Phillips, and Parks Ranges is miniscule. It has also been determined that probability of any rounds fired from Easley Range impacting on McAndrews, Hibbs, Phillips, and Parks Ranges is also miniscule. The distance to Sunshine Road and other controlling factors just mentioned as well as the low angles of elevation for firing on Easley and McAndrews Ranges prevent the rounds from crossing Sunshine Road. Risk management factors were considered in the development of the range safety waivers and the conclusion of the residual overall risk is low (Enclosure 4).

e. We request areas to be waived are as follows: Surface Danger Zone that extends across from McAndrews Range onto Easley Range, Hibbs Range, and a portion of Phillips Range, including the down range portion of Parks Range. The Surface Danger Zone that extends from Easley Range onto McAndrews Range, Hibbs Range, and a portion of Phillips Range, including the down range portion of Parks Range. Also to be waived, the right side corner Surface Danger Zone from Easley and McAndrews Ranges that crosses Sunshine Road and into the Chattahoochee River, as shown in Enclosure 3. In addition, we also request the use of Steel Targets on Easley and McAndrews Ranges, IAW 75th Ranger Regiment SOP for use of Steel Targets (Enclosure 5) and the Fort Benning Form 210-4-3-R scenario. A range waiver for Easley and McAndrews Ranges has been granted annually by the Commanding General.

f. This waiver authority TRADOC REG 385-2, 27 January 2000, Paragraph 6-3 Range Safety Waivers, specifies procedures for granting waivers of range safety criteria contained in AR 385-63 and DA PAM 385-63, which authorizes MACOM commanders to waive specific safety criteria. This waiver authority is delegated to general officers commanding TRADOC installations. It shall not be further delegated. (Enclosure 2).

RECOMMENDATION: That the Commanding General sign the waiver at Enclosure 1. This waiver is valid for 1 year. In the event of an accident arising from use of this range under these waived conditions, the waiver becomes invalid until reinstated by this headquarters.



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY INFANTRY CENTER
FORT BENNING, GEORGIA 31905-5000

REPLY TO
ATTENTION OF

AORG-RGR

MEMORANDUM FOR DIRECTORATE OF OPERATIONS AND TRAINING,
ATTN: ATSH-OTR, USAIS, FORT BENNING, GA 31905-5593

SUBJECT: Range Safety Waiver – Easley and McAndrews Range

1. REFERENCES:

- a. AR 385-63, Range Safety, 19 May 03.
- b. DA PAM 385-63, Range Safety, 12 Apr 03.
- c. Memorandum, HQ TRADOC, ATCS-S, 10 Oct 00, Subject: Authority to Waive Safety Criteria contained in AR 385-63.

2. Under the references mentioned above and the provisions mentioned below, the areas to be waived are as follows: Surface Danger Zone that extends across from McAndrews Range onto Easley Range, Hibbs Range, and a portion of Phillips Range, including the down range portion of Parks Range. The Surface Danger Zone that extends from Easley Range onto McAndrews Range, Hibbs Range, and a portion of Phillips Range, including the down range portion of Parks Range. Also to be waived, the right side corner Surface Danger Zone from Easley and McAndrews Ranges that crosses Sunshine Road and into the Chattahoochee River, as shown in Enclosure 3. We also request the use of Steel Targets on Easley and McAndrews Ranges, IAW 75TH Ranger Regiment SOP for Use of Steel Targets (Enclosure 5) and the Fort Benning Form 210-4-3-R scenario.

3. The controlling factors are as follows: Easley and McAndrews Ranges are Known Distance training ranges used by the 75TH Ranger Regiment to conduct Basic Rifle Marksmanship, Preliminary Rifle Instruction, and Advanced Rifle Marksmanship through the repetition of highly accurate rifle fire to downrange targets simulating a tactical environment. With the use of basic iron sights, lasers, and advanced optics, Rangers use alternate firing, assisted, and unassisted positions to engage targets as close to 75 yards or as far as 600 yards, during grouping, zeroing, and multiple target live fire exercises. During these exercises, all aspects of marksmanship are considered and incorporated from the downrange feedback of obstacles such as limited time, limited visibility, and known or unknown distances. All considerations of safety from the Pits Area to the firing points are controlled deminishing any risk and maximizing training time.

AORG-RGR

SUBJECT: Range Safety Waiver – Easley and McAndrews Range

All weapons used on Easley and McAndrews Ranges have been inspected by a 75th Ranger Regiment Armorers, field tested, and serviced, to perform with minimal malfunctions. In the event that a malfunction should take place, all Rangers are knowledgeable on immediate action, remedial action, and Cease Fire. On Easley and McAndrews Ranges, all protective equipment including eye and hearing protection while on the firing line is mandatory. Targets used in training are paper, steel, or cardboard mounted in a target frame or target carriage located in the pits area. The OIC/RSO will also ensure targets will be positioned at the base of the berm to avoid Rangers from shooting over the top of the berm compartment. The 75th Ranger Regiment has taken precautions to ensure the proper use of all steel targets is enforced. The OIC/RSO ensures the target positioning will not violate the Left and Right limits to include the set up and removal of all targets, scenarios, and equipment used downrange. The steel targets will be pointed downward to reduce ricochet prescribed in the 75th Ranger Regiment SOP. Rangers will engage targets from a safe distance in IAW the limitations described in the 75th Ranger Regiment SOP for use of Steel Targets (Encl 5) and the Fort Benning Form 210-4-3-R scenario. Prior to all exercises, all personnel will observe right/left limits, overall range layout, target area, and a safety briefing.

4. There is a 12-foot berm on both the extreme right and left lateral limits on Easley Range. There is also a berm, concrete walls, trees, and brush between Easley, Hibbs, Phillips, and Parks Ranges. In addition, there is a berm between Easley and McAndrews Ranges. Based upon the type of firing conducted on Easley and McAndrews Ranges, and height of the berm; the statistical probability of any rounds fired from McAndrews Range impacting on Easley, Hibbs, Phillips, and Parks Ranges is miniscule. It has also been determined that probability of any rounds fired from Easley Range impacting on McAndrews, Hibbs, Phillips, and Parks Ranges is also miniscule. The distance to Sunshine Road and other controlling factors just mentioned as well as the low angles of elevation for firing on Easley and McAndrews Ranges prevent the rounds from crossing Sunshine Road. Risk management factors were considered in the development of the range waiver and the conclusion of low risk was reached (Encl 4).

AORG-RGR

SUBJECT: Range Safety Waiver – Easley and McAndrews Range

5. This waiver is valid for a one-year period. In the event of an accident arising from use of the range under these waived conditions, this waiver becomes invalid until reinstated by this headquarters. POC for this action is CPT Thomas Leonard, RRC AOPSO, (706) 626-2722 or thomas.butler.leonard@soc.mil.



MICHAEL FERRITER
Major General, USA
Commanding General

5 Encls

1. Safety Waiver Memorandum
2. Authority to Waive Safety Criteria
3. Map Depicting SDZ to be Waived
4. Risk Management Worksheet
5. 75th Ranger Regiment SOP for Using Steel

CF:

Commander, 75th Ranger Regiment
Combat Readiness Office
Commander, TRADOC, ATTN: ATCS-S



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY INFANTRY CENTER
35 RIDGWAY LOOP
FORT BENNING, GEORGIA 31905-4500

IMSE-BEN-SO (385g)

07 July 2009

THRU Manager, Fort Benning Safety Office, Fort Benning, GA. 31905

MEMORANDUM FOR United States Army Marksmanship Unit, Attn: SFC J. Sokolowski, Fort Benning, GA 31905

SUBJECT: 75th Ranger Regiment Range Safety Waiver, Easley and McAndrews Range.

1. Reference FB Form 26-R-E, dated 26 June 2009, 75th Ranger Regiment Range Safety Waiver, Easley and McAndrews Range.
2. Recommendations. CONCUR with comments.
 - a. Recommend approval of waiver for the 75th Ranger Regiment and no other unit operating on Easley and McAndrews Range.
 - b. Bolster the DA Form 7566 with weapons clearing procedures.
 - c. The control measures and self-imposed restrictions appear to be prudent and logical for daily operations within the Ranger Regiment. The 75th must provide a POC for actions while operating under the waiver and coordinate actions with the owning unit (USAMU).
 - d. Modify the FB Form 210-4-3-R to accurately reflect the weapon systems and ammunition used.
 - e. Modify verbiage on FB Form 210-4-3-R Section VI, Block c to coincide with a one (1) year expiration period and not an "indefinite" date.
 - f. DA Form 7566, Easley and McAndrews Range, Heat/Cold Awareness Foul Weather Lightning. Recommend that a standoff distance be established for operations to cease when lightning is reported on Fort Benning.
 - g. Suggest that the initial risk level for "Personnel injury due to accidental discharge of a weapon" and "Bullet/fragment/steel target injuries from ricochet" be elevated to HIGH and residual to a MODERATE level. There is no empirical or statistical data to provide guidance on the trajectory of a ricocheting bullet coming off AR 500 steel.
 - h. DA Form 7566, Easley and McAndrews Range, Block 13. Over all risk level marked as MODERATE, and highest residual risk, in Block 9, is LOW.
3. Copy furnished to Commander, S-3 Ranger Special Troops Battalion 75th Ranger Regiment Attn: CPT Thomas B. Leonard, thomas.butler.leonard@us.army.mil, ((706) 626-2764), Fort Benning, GA 31905

IMSE-BEN-SO

SUBJECT: 75th Ranger Regiment Range Safety Waiver, Easley and McAndrews Range.

4. Point of contact is Michael W. Risher II, Fort Benning Safety Office, Comm. (706) 545-8275, DSN 835-8275, michael.w.risher@us.army.mil

A handwritten signature in black ink, appearing to read "McRisher" with a stylized flourish at the end.

MICHAEL W. RISHER, II
Risk Mitigation Specialist
Fort Benning Safety Office

10 October 2000

Safety
TRADOC SAFETY PROGRAM

Summary. This is a change to TRADOC Regulation 385-2, 27 January 2000. This change updates policies and procedures affecting the implementation of the TRADOC Commander's Safety Program.

Suggested improvements. The proponent of this regulation is HQ TRADOC, Command Safety, Office of the Chief of Staff. Send comments and suggested improvements on DA Form 2028 (Recommended Changes

to Publications and Blank Forms) through channels to Commander, Training and Doctrine Command, ATTN: ATCS-S, 5A North Gate Road, Fort Monroe, VA 23651-1048. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program).

Availability. This publication is available only on the TRADOC Homepage at <http://www-tradoc.army.mil>

1. Change TRADOC Reg 385-2, 27 January 2000, as follows:

Paragraph 1-4, subparagraph f(5). Insert after first sentence: "This individual will be referred by the Army Civilian Career Evaluation System (ACCES). All Safety Manager positions, GS-13 and above, or those positions determined critical by the Director, Command Safety, will be paneled by this headquarters."

Add Paragraph 2-8: "Heat injury reporting. Heat injuries resulting in hospitalization or death will be immediately reported to the Command Safety Office by the most efficient means (E-mail/FAX). During the warm to hot weather training season (normally March through September), installations will submit a weekly Heat Injury Report. This report will be submitted the first duty day of the week and cover the previous week from Monday through Sunday."

Add Paragraph 2-9. "Range weapons accident/incident reporting. All accidents/incidents occurring on TRADOC ranges involving weapons systems will be immediately reported through appropriate channels to HQ TRADOC, ATTN: ATCS-S. Essential Elements of Information Format (fig 2-1) will be used to submit these reports."

Paragraph 6-3. Delete all and replace with: "6-3. **Range safety waivers.** This paragraph specifies procedures for granting waivers of range safety criteria contained in ARs 385-62 and 385-63, which authorizes MACOM commanders to waive specific safety criteria.

a. This waiver authority is delegated to general officers commanding TRADOC installations. It shall not be further delegated. In addition to guidance contained in subject references, waivers may be granted that allow personnel who are not directly

participating in the actual conduct of training within the Surface Danger Zone (SDZ) to conduct official business or be an observer.

b. Approved waivers will be effective for one year or less. Range safety waivers may be renewed. Waivers and renewals of waivers will include:

(1) A statement of how the range fails to meet criteria of ARs 385-62 or 385-63, as applicable.

(2) What action is planned to bring the range into compliance with safety criteria established by ARs 385-62 or 385-63, where such action is feasible, or an explanation as to why compliance is not feasible.

c. The respective approval authority may renew expired waivers provided conditions cited in the original waiver have not changed.

d. The need to incorporate conditions, requirements, controls, etc., in approved waivers into range development plans will be addressed at each 5-year installation range development plan meeting.

e. Installations will provide a copy of each granted waiver or renewed waiver to HQ TRADOC, ATTN: ATCS-S, not later than 7 days after approval.

f. Any accident or incident occurring under an approved waiver will cause automatic termination of the approval until an investigation is completed and the waiver revalidated by the respective approving authority.

g. For non-resident units conducting live-fire training operations under an approved waiver, the host installation commander approval is required. Installation commanders will ensure range safety waivers for non-TRADOC organizations operating on TRADOC installations meet the same criteria established for TRADOC units.

h. Installation commanding generals must remain personally involved with the circumstances requiring waivers and the risks involved. They are responsible to ensure waivers include a risk assessment and an on-the-ground review conducted by range personnel to ensure waiver requirements are valid and conditions affecting the waiver have not changed. Installation commanding generals will review all range waivers semiannually."

Chapter 10, paragraph b. Add subparagraph (5): "Retain authority to waive the minimum age of lifeguards. Waivers must meet all requirements of Appendix L, Requirements for Issuing Waivers to Lifeguard Minimum Age."

Chapter 11, paragraph 11-2e(6). Add after M8A1s: "M-22s."

Chapter 11, paragraph 11-2f(5). Add after last sentence: "Watches and compasses containing tritium are exempt from this requirement."

Add: "Appendix L, Requirements for Issuing Waivers to Lifeguard Minimum Age.

Installation commanders are hereby given authority to waive the minimum age of lifeguards. This authority will not be further delegated. Subject waiver will only be granted after the following requirements are met:

a. A thorough risk assessment will be conducted to ensure adequate controls are in place to mitigate potential hazards. A separate waiver is required for each facility.

b. Waivers will be reviewed annually for relevancy. Each successive installation commander will renew each waiver.

c. In the event of a drowning as a result of an accident arising from the use of the facility under waived conditions, the waiver becomes invalid until reviewed and the commander reinstates.

d. Due to the inherent high risk involved with the operation of swimming pools and aquatic facilities, TRADOC regulations require lifeguards to be at least 18 years of age. However, on a case-by-case basis, persons age 15 through 17 may possess the required maturity to perform this function. Prior work experience or similar evidence of suitability may demonstrate this maturity.

e. Lifeguards must possess the following essential attributes:

(1) Appropriate certification by the American Red Cross, YMCA, or recognized lifeguard certification authority.

(2) Current cardio-pulmonary resuscitation (CPR) certification.

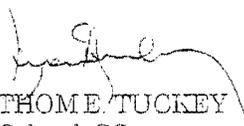
(3) An understanding and a willingness to accept responsibility for the well-being of pool users.

f. Installation commanders should be confident that the hiring official is cognizant of the need to properly screen young applicants. The hiring official will use all available means to assess subjective attributes of maturity, sound judgement, and responsibility. These efforts will include 1) interviews with applicants, teachers, former employers, and parents; and 2) check of police and school records."

2. Post these changes per DA Pam 25-40.

FOR THE COMMANDER:

OFFICIAL: JOHN B. SYLVESTER
Major General, GS
Chief of Staff


THOME TUCKEY
Colonel, GS
Deputy Chief of Staff
for Information Management

Chapter 6 Range Safety

6-1. Responsibilities.

a. Director, Command Safety, in conjunction with branch proponent, will—

(1) Evaluate worldwide Army range accident data to identify range hazards.

(2) Develop safety lessons learned.

(3) Assess the adequacy of range safety standards and training safety criteria; and develop countermeasures.

(4) Assist using units/agencies in risk management of range and live-fire operations.

b. Installation commanders will execute the applicable safety responsibilities in ARs 75-1, 210-21, 385-10, 385-62, 385-63, and TRADOC Reg 700-2.

c. Installation range control officers will—

(1) Be responsible for the overall operation of the range control organization in its implementation of the range safety program.

(2) Maintain coordination with the IBSO on all safety matters relating to range and live-fire operations.

(3) Develop a range safety directive, and ensure all ranges have SOPs.

(4) Develop and implement an on-post and off-post range safety educational program in coordination with the IBSM, public affairs officer (PAO), Quality Assurance Specialist Ammunition Surveillance (QASAS), provost marshal, and local Explosive Ordnance Disposal (EOD) unit commander.

(5) Ensure selected range control personnel receive range safety training. At least one member of the range control organization should be a graduate of the Army Range Safety Course. When unexploded ordnance (UXO) recognition training program is implemented, at least one member of the range control organization, and other appropriate personnel, should be UXO recognition qualified through training provided by EOD.

d. IBSM has oversight responsibility for all range safety matters. IBSMs will—

(1) Provide staff oversight on integrating safety and safe weapons handling into the local range program.

(2) Monitor cadre/staff instruction to ensure all instructors receive training in range hazards before teaching students or operating a range.

(3) Review and comment on new and revised installation range safety directives and SOPs.

(4) Monitor UXO training, developed and

conducted by the local EOD unit commander in coordination with appropriate staff agencies (e.g., range manager, provost marshal, director of public works (DPW)).

(5) Ensure safety and range professionals receive range safety education. At least one member of the IBSO will be a graduate of the Army Range Safety Course. When UXO recognition training program is implemented, at least one member of the IBSO should be UXO recognition qualified through training provided by EOD.

(6) Inspect range facilities and live-fire training areas IAW AR 385-10, paragraph 4-1a(1). Recommend closure of ranges/training areas when warranted by safety considerations.

(7) Assist in safety planning and review of ranges designated for construction, modification, rehabilitation, or changes in use.

(8) Assist range control officer and PAO in developing and implementing an on- and off-post range safety educational program.

(9) Review and comment on deviations to AR 385-63 before submission to approving authority. Ensure each deviation contains risk assessment.

(10) Ensure a copy of all locally approved deviations are forwarded to HQ TRADOC, ATTN: ATCS-S within thirty (30) days of approval.

6-2. Accident reporting. Report any accident caused by firing of weapons system(s) that would indicate inadequacy of the range safety provision of this regulation and ARs 385-62 and 385-63, to Commander, TRADOC, ATTN: ATCS-S, Fort Monroe, VA 23651-1048 IAW paragraph 2-4, above (RCS CSOCS-308).

6-3. Residual risk acceptance approval authority. Range/live fire deviations may be approved IAW paragraph 1-5c.

Chapter 7 Explosives Safety

7-1. Responsibilities.

a. Director, Command Safety will—

(1) Serve as the TRADOC point of contact to the U.S. Army Technical Center for Explosive Safety (USATCES).

(2) Serve as the alternate member of the DA Explosives Safety Council (DAESC).

b. Commanders, TRADOC installations will—

(1) Execute the applicable responsibilities in ARs 75-1, 385-10, 385-61, 385-62, 385-63, 385-64, TRADOC Reg 350-30 and TRADOC Reg 700-2.

(2) Ensure explosive safety program complies with provisions of AR 385-64 and DA Pam 385-64.

Army Regulation 385-63
MCO 3570.1B

Safety

Range Safety

Headquarters
Departments of the Army, and The Marine
Corps
Washington, DC
10 May 2003

UNCLASSIFIED

(g) Prohibit controlled burning of vegetation on ranges as a method to clear UXO. Controlled burns may be used to control dense brush or undergrowth or clear a range of vegetation to make UXO clearance operations safe for personnel conducting the clearance operation.

(h) Ensure procedures are in place that allow prompt response to a release of military chemical compounds, for example, chemical agent, chemical smoke, riot control agents, and so on, or other hazardous materials used for training, or to a substantial threat of a release on or off range when such a release poses an imminent and substantial threat to human health or the environment.

(i) For the Army only, on ranges or other areas known or suspected to contain ICMs or submunitions—

1. Before personnel access is granted to range impact areas, and in cooperation with the installation range operations office, determine whether actual or suspected ICM/submunitions contamination exists. Range operations, in coordination with installation safety and EOD representatives, will determine if it is safe to permit personnel access and establish prerequisite precautions. Personnel permitted to enter any area known to contain or suspected of containing ICMs or submunitions will be fully apprised of the potential dangers and the safeguards to be exercised.

2. Ensure DCS, G-3 (DAMO-TR), DASAF, and G-4 (DALO-AMA) are informed of any ranges or other areas known to contain ICMs or submunitions.

3. Ensure that ranges or other areas known or suspected to contain ICMs or submunitions are clearly marked and that entry to these areas is restricted and access is controlled.

4. Prohibit all activities on ranges or other areas known or suspected to contain ICMs or submunitions unless a waiver, approved by the DASAF and the DCS, G-3 (DAMO-TR), is obtained.

5. Follow the mandatory procedures contained in chapter 3 of DA Pam 385-63 for controlling hazards and for requesting waivers to the restriction on maintenance, characterization, or clearance of ranges or other areas known or suspected to contain ICMs or submunitions.

(j) Establish and implement all feasible access controls to deter unauthorized access.

(k) Establish and conduct an aggressive education program for all installation personnel, their families, and the general public on the dangers of dud ammunition and other UXO. Installations outside the continental United States will coordinate the need for such with the host nation and in accordance with applicable agreements.

1-5. Goals

The goals of the Range Safety Program are to—

a. Enhance safe, realistic live-fire training, enabling the Army/USMC to train as it fights.

b. Protect personnel and property while improving combat readiness training and help prevent fratricide in combat.

c. Protect civilian and military populations who live and work in the vicinity of live-fire training ranges.

d. Design and use ranges and the munitions used on them, to the extent practical, to minimize both potential explosive hazards and harmful environmental impacts and to promote resource recovery and recycling.

e. Avoid injuries and property damage by introducing the risk-management process early in the range-management process to enhance combat readiness.

Chapter 2

Ranges

2-1. General

a. The commander is responsible for the safe conduct of soldiers/marines involved in training operations.

b. All military commands and all Federal, State, local, and or private organizations using Army and USMC ranges will adhere to the provisions of this regulation/order, DA Pam 385-63, and required publications.

c. Army, Army Reserve, and Marine Corps indoor firing ranges will be designed, operated, maintained, inspected, and decontaminated according to guidance issued by the Center for Health Promotion and Preventive Medicine.

d. The Army National Guard will provide design, operational, maintenance, and decontamination instructions to subordinate units.

2-2. Surface danger zones

a. SDZs will be prepared and updated as appropriate according to DA Pam 385-63 for all munitions and laser systems. Munitions and hazardous laser systems (such as class 3b and 4 lasers) will not be fired or employed on training ranges except within the confines of approved SDZs. Deviations from this policy shall be in accordance with the provisions of chapter 3 of this regulation/order and DA Pam 385-63. For Marine Corps air-to-ground ranges, OPNAV Instruction 3550.1 will be considered.

b. SDZs published in DA Pam 385-63 represent Army and USMC minimum safety requirements. Revised SDZs and SDZs for new munitions/weapons will be approved and disseminated according to the provisions in paragraph 1-4

of this regulation. They are adequate only when employed with properly functioning safety equipment and devices, and when trained and competent personnel follow published firing procedures.

c. Baffled firing ranges—those providing containment of projectiles, fragments, and ricochets—designed and maintained according to host nation design requirements or approved United States Army Corps of Engineers designs do not require application of SDZ restrictions outside the baffled area. Approval authority for this type of range is the Army MACOM commanders.

d. For the Army, the creation of new or the expansion of existing high-explosive (HE) dud-contaminated impact areas must be approved by the ASA (I&E); for the Marine Corps, the areas must be approved by DC, I&L, in conjunction with other headquarters USMC agencies. Existing dedicated impact areas will be used to the maximum extent feasible when firing dud-producing munitions.

e. If a round exits an approved SDZ, firing of that munition and weapon will cease locally until the cause of the round-out-of-impact (ROI) has been determined.

(1) If firing occurred with an approved range safety deviation and if the investigation determines all controls required by the deviation were in place, the deviation will be rescinded immediately.

(2) If firing occurred without any deviations from this regulation/order and DA Pam 385-63; if the investigation determines all required controls are in place; and if there was no ammunition malfunction, the installation/area support group commander or a designated representative will report the incident to the weapon system manager and the MACOM safety office. The MACOM safety office will report the incident to the Office of the Director of Army Safety, in accordance with AR 750-6. The Marine Corps will report the incident to CMC (SD).

f. SDZs will be updated on the basis of data derived from research and development, testing, and or actual firing experience. SDZs for new ammunition and weapons and modifications of existing SDZs will be approved and disseminated using the same procedures described in paragraph 1-4 of this regulation/order.

2-3. Nonstandard ammunition and explosive items

a. Nonstandard ammunition and explosive items are prohibited unless specifically approved by one of the following; CG, AMC; COMMARCORSYSCOM; Chief of Ordnance, Aberdeen Proving Ground, MD; CG, USASOC; CG, U.S. Army John F. Kennedy Special Warfare Center and School; or CG, U.S. Army Special Forces Command, as appropriate.

b. Commanders of Special Forces groups may approve use of nonstandard items of explosives when necessary for Special Forces training and operations. Also, grade 0-6 commanders of Special Operations Forces may approve use of nonstandard ammunition and or explosives for units conducting training unique to Special Operations Forces.

c. Final approval for use of nonstandard ammunition and explosives on a specific installation rests with the MACOM commander or his or her designee (such as an installation commander). For the Marine Corps, the use of nonstandard ammunition and explosives or foreign ammunition on training ranges will be reported to local range control and EOD prior to use.

d. Altering fixed ammunition, such as increasing the amount of propellant, is prohibited.

2-4. Range safety programs

Range safety programs will be established for all ranges and will include—

a. Guidance for maneuvers in dud areas.

b. Authority to prohibit picking up, tampering with, or removing UXO by unauthorized personnel. Only personnel qualified in UXO identification and removal procedures will be involved in clearance operations.

c. Instructions on reducing UXO to the minimum, tracking UXO, and conducting appropriate range clearing operations to ensure safe range areas are available for training.

d. Guidance on controlling the use of ranges and live-fire training areas for recreational and other similar uses.

e. Guidance/procedures for range use by foreign nationals.

f. Requirements for processing deviations from the standards in DA Pam 385-63.

g. Guidance for periodic maintenance and policing of training complexes.

2-5. Prohibitions

a. Unless approved by the CSA or the CMC, the following activities are prohibited:

(1) ICM training and demonstration by Army organizations. The prohibition does not include ICM proof testing on approved Army test ranges. Marine Corps units will fire ICMs only into dedicated impact areas where troops are not permitted to maneuver. If an ICM round exits an approved ICM area, firing of that munition and weapon will cease locally until the cause of the ROI has been determined. Range control authorities and EOD units should be immediately notified of the event and the area identified as a possible ICM area until an explosive ordnance reconnaissance can confirm the area safe for use. If firing occurred with an approved range safety deviation and if the investigation determines all controls required by the deviation were in place, the deviation will be rescinded immediately.

(2) Firing ammunition, pyrotechnics, missiles, and or rockets over ammunition supply points, field ammunition supply points, or any ammunition storage area.

- (5) Firing depleted uranium ammunition.
- (4) Placing unprotected personnel in specific portions of SDZs as identified in DA Pam 385-63, except as identified in chapter 3 of this regulation/order.
- (5) Overhead fire above unprotected personnel with ammunition, pyrotechnics, missiles, and or rockets unless specifically authorized by DA Pam 385-63.
- (6) The use of ranges or live-fire training areas that may contain UXO for recreational purposes.
- (7) Entering HE dud-contaminated impact areas by Marine Corps personnel to extinguish fires. Fires in HE dud impact areas will be contained by employing firefighting personnel and techniques on range perimeters outside fragmentation distance of known dud ordnance. For the Army, entry into HE dud contaminated areas to extinguish fires is an extremely high-risk operation that requires a through risk assessment and approval at the appropriate level of command.
 - b. Live-mine training is permitted subject to guidelines prescribed in DA Pam 385-63 except as prohibited below:
 - (1) Burying live mines for training purposes.
 - (2) Trip wires, booby traps, or tilt rods used separately or collectively with live mines in training.
 - (3) Live-mine and practice-mine training taking place concurrently at the same location.
 - (4) Disarming/arming live mines more than 25 iterations per mine.
 - (5) Training with non-self-destructing antipersonnel land (APL) mines except as authorized by the National Command Authority. When training with non-self-destructing APL mines is authorized, the following prohibitions apply:
 - (a) Training with live M14 mines.
 - (b) Training with the M16 antipersonnel mine without the positive safety pin remaining in the M605 fuze.
 - (c) Use of pre-1957 M605 fuzes with the M16 antipersonnel mine in training.

2-6. Use of non-DOD property

- a. This regulation/order does not preclude use of non-DOD-owned property for military activities. Decisions to use non-DOD-owned property for live-fire exercises are the prerogative of MACOM commanders. AR 405-10 contains mandatory guidance regarding acquisition of real property interest and the necessary approval requirements.
- b. The SDZs for non-DOD-owned training areas must meet the requirements of this regulation/order and applicable regulations of other military services using the land in conjunction with the Army or Marine Corps. Additionally, SDZs must meet applicable environmental and local regulations. A formal agreement with the owner(s) of the non-DOD-owned property is required.
- c. Specific control measures for access to training areas by authorized personnel, for exclusion of unauthorized personnel, and for decontamination of training areas prior to release from Army control are required.

2-7. Risk management

- a. The risk-management process, described in DA Field Manuals (FM) 25-101, 100-14, 101-5, and MCO 3500.27A, will be used to manage risks during all live fire. The risk-management process will be used to identify range hazards and implement appropriate controls in the development of installation range regulations and SOPs. Residual risks of fragment escape or other danger to the public no greater than 10^{-6} (one in one million) is the objective of SDZs.
- b. When application of the risk-management process results in deviation to SDZs, modifying prescribed firing procedures or allowing personnel not directly participating in the actual conduct of training within the SDZ must comply with the deviation provisions in chapter 3 of this regulation/order.
- c. Units using ranges will employ risk-management procedures to identify operational hazards and implement appropriate controls to minimize training-mission risk. Formal risk-management documentation is required prior to execution on major training exercises, such as combined arms live-fire exercise (Army)/combined arms exercises (Marine Corps) scenarios and for any operation with a high or extremely high residual risk.
 - d. Risk-management principles are as follows:
 - (1) The unit chain of command will document the risk-management process.
 - (2) MACOM commanders will establish risk acceptance decision levels. If residual risk is extremely high, MACOM commander approval is required.
 - e. The installation commander or his or her designated representative may approve activities identified in the following subparagraphs (1) and (2) on installation ranges after a risk assessment has been conducted in accordance with FM 101-5 and according to provisions in AR 210-21. Installation range and safety managers will review the risk assessment. The Commander, U.S. Army Reserve Command, may approve activities identified in subparagraphs (1) and (2) at reserve centers with firing ranges.
 - (1) Recreational activities on ranges or training areas.
 - (a) Outdoor recreational activities in temporary or permanent (dud-producing) contaminated impact areas are strictly prohibited, without exception, in accordance with AR 210-21, paragraph 5-11d.

de There will be no hunting, fishing, or other recreational activities in officially designated or marked dud-contaminated impact areas.

eo Range, safety, and natural resources managers will determine recreational use area boundaries in and adjacent to impact areas according to this regulation/order and AR 200-3.

(2) The firing of military weapons by minors and military family members.

et The only time military weapons may be fired on military ranges by minors and military family members is under competent supervision.

fb Minors and military family members must obey all firing and safety regulations and range SOPS. Refusal to comply will result in immediate removal from the firing line and denial to fire military weapons.

2-8. Range operations outside the United States

Standards and procedures contained in DA Pam 385-63 apply to range operations conducted by U.S. Armed Forces training outside the United States. Operations will be conducted according to U.S. and or host nation agreements, normally whichever is stricter.

2-9. Other military services/agencies

Military services other than the Army and the Marine Corps, as well as local, State and Federal agencies, may use Army/USMC-controlled ranges at the discretion of the installation commander. Agencies wishing to use Army/USMC-controlled ranges must comply with the provisions of this regulation/order and DA Pam 385-63 or MIL-HNDBK-828A. Requests for use shall include all technical data regarding munitions and weapons systems for a review of the adequacy of the range for the proposed operation and for the application of the risk-management process.

Chapter 3

Deviations

3-1. Deviations from range standards and procedures

a The personnel listed in paragraph 3-1c do not have the authority to grant exceptions to the prohibitions in paragraph 2-5.

b The risk-management procedures outlined in paragraph 2-7 always apply.

c Deviations may be authorized by the following personnel:

(1) MACOM commanders.

(2) COMMARFORLANT, COMMARFORPAC, COMMARFORRES, and commanding generals of all supporting establishment commands.

(3) The Superintendent, U.S. Military Academy.

(4) The Director, Army National Guard.

3-2. Delegation of deviation authority

a MACOM commanders, COMMARFORLANT, and COMMARFORPAC may subdelegate, in writing, deviation authority to general officers in command positions, but not lower than installation commanding generals. This authority shall not be further subdelegated.

b The Director, Army National Guard, may subdelegate deviation authority to State Adjutant Generals.

3-3. Deviation limitations

a Deviations are limited to—

(1) Reducing SDZ dimensions when terrain, artificial barriers, or other compensating factors make smaller SDZs safe.

(2) 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 participating soldiers and marines.

(3) Allowing personnel who are not directly participating in the actual conduct of training within the SDZ.

b Guidelines for preparing a range safety deviation are contained in DA Pam 385-63.

c Deviations will not be applied to other Federal agency directives/regulations such as airspace or water traffic requirements.

d Approved deviations will be effective for 1 year or less.

(1) Expired deviations may be renewed by the respective approval authority provided conditions cited in the original deviation have not changed.

(2) The need to incorporate conditions, requirements, controls, and so forth in approved deviations into range development plans will be addressed at each 5-year installation range development plan meeting.

- e. Any accident or incident occurring under an approved deviation will cause automatic termination of the approval until an investigation is completed and the deviation revalidated by the respective approving authority.
- f. Conflict regarding level of risk determination will be resolved by the commander holding the deviation authority for the highest level of risk deemed in conflict.
- g. For live-fire training operations conducted under an approved deviation by nonresident units, the host installation commander must approve training at a host installation.

Department of the Army
Pamphlet 385-63

Safety

Range Safety

Headquarters
Department of the Army
Washington, DC
10 April 2003

UNCLASSIFIED

Chapter 1 Introduction

1-1. Purpose

This pamphlet provides implementation guidance for the Army and Marine Corps (MC) Range Safety Programs prescribed in Army Regulation (AR) 385-63 and Marine Corps Order (MCO) 3570.1B. It provides standards and procedures for the safe firing of ammunition, demolitions, lasers, guided missiles, and rockets for training, target practice, and, to the extent practicable, combat.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the glossary.

1-4. Applicability

a. This pamphlet applies to—

(1) The Active Army, United States Military Academy, the Army National Guard of the United States, U.S. Army Reserve, Department of the Army civilian employees, and contractors.

(2) Army Reserve Officers Training Corps during range or firing activities located on or within the jurisdiction of a military installation.

(3) Marine Corps commands active and reserve, unless the standards or procedures conflict with Department of the Navy or Headquarters, Marine Corps (HQMC) orders. Local standing operating procedures (SOP) and range policies will reinforce this pamphlet and AR 385-63/MCO 3570.1B.

(4) Range training and target practice activities.

(5) Military real estate areas that are being or have been used as bombing ranges, artillery impact areas, target areas, and other areas exposed to contamination by military munitions, chemicals, pyrotechnics, or other dangerous materials.

(6) All areas designated for live-fire weapons firing and laser training, including recreational ranges, located on Army- or Marine Corps-controlled property.

(7) Civilian training complexes when authorized for Army or Marine Corps active and reserve use.

b. The standards and procedures of this pamphlet are advisory for actual combat conditions.

c. This pamphlet also applies to training outside U.S. territories. U.S. Army or Marine Corps installation commanders will apply the provisions of this pamphlet or host nation agreements as appropriate.

d. Surface danger zones (SDZs) in this pamphlet represent minimum safety requirements. They are adequate only when employed with properly functioning safety equipment and devices and when trained and competent personnel follow published firing procedures.

e. Except for airspace and water traffic safety requirements, the standards and procedures in this pamphlet do not apply to development, proof and function test ranges, and laboratories. However, major Army commands (MACOMs) that have such ranges and laboratories are required to develop and apply alternate standards that are appropriate to the mission and to ensure the preservation of life and property. To ensure range safety measures are adequate for protecting equipment and personnel, development, proof and function test ranges, and laboratories are required to submit an adjusted SDZ and base justification of adjusted SDZ on risk-mitigating measures, failure mode and effects analysis, inspection and test procedures (for example, x ray or functional component validation), analytical data (for example, Monte Carlo and Six Degrees of Freedom simulations), and empirical data from the same missile or missile with similar flight characteristics. The applicable activity commander will approve the adjusted SDZ.

1-5. Deviations

a. Deviations may be granted based on critical mission requirements that conflict with regulatory standards in accordance with AR 385-63/MCO 3570.1B. Deviations are limited to—

(1) Reducing SDZ dimensions when terrain, artificial barriers, or other compensating factors make smaller SDZs safe.

(2) Modifying prescribed firing procedures appropriate for a state of training of participating personnel to increase training realism.

(3) Allowing personnel who are not directly participating in the actual conduct of training within the SDZ.

b. Deviations applied to SDZs extending beyond installation boundaries must be based on the ability to contain projectiles, hazardous fragments, laser beams and both vertical and horizontal ricochet sufficiently within the installation boundaries, and areas under military control (for example, leased land or training areas and facilities acquired through Memorandum of Understanding or Memorandum of Agreement.) Probability of hazardous fragment escapement must not present a greater hazard than 1:1,000,000 (10^{-6}) (unlikely) to the public.

c. As a minimum, all deviation authorizations will contain the following, as appropriate:

- (1) Statement citing chapter, paragraph, and subparagraph of the specific condition requiring deviation, and the name and number of the firing range, training facility, or maneuver area involved.
 - (2) Description of the existing condition and anticipated hazards, subsequent hazard analysis, and risk analysis.
 - (3) Statement as to why a deviation is necessary and impact on training if not granted.
 - (4) Control measures taken to eliminate hazards and/or minimize risk and residual risk level.
 - (5) Installation and unit SOPs governing the specific firing range, training facility, or maneuver area for which the deviation applies.
 - (6) Scaled topographical map depicting standard SDZ and requested deviation.
 - (7) Map coordinates of the firing position, target location, and quadrant or elevation of fire, if required. The firing position, direction of fire, and SDZs will be plotted on the scaled map with distances shown in meters.
 - (8) Terrain profiles through the gun target line (GTL) and left and right limits of fire showing the relative elevation of the weapon system to be fired, the target, and natural terrain backstop or artificial barrier. A cross-sectional terrain profile showing the natural terrain backstop downrange will also be submitted. Terrain profiles only need to be drawn for the condition(s) requiring deviation and if profiles truly support justification for the deviation. Automated SDZ (ASDZ) trajectory profiles may be submitted in lieu of developing terrain profiles through manual means, if deemed appropriate by the installation commander. Risk-management principles will be applied in determining the applicability of alternate profiles.
- d. Requests for deviation will originate from the unit or activity conducting the event, or the installation range control officer (RCO). Requests will be coordinated through the appropriate chain of command as needed and the installation safety office, which will provide final review to ensure risk-management steps are accomplished. The installation range control officer makes the initial judgment regarding the suitability of a proposed deviation prior to submission to the approving authority.
- e. Deviations are valid for 1 year.
- f. Deviations will not be applied to other Federal agency directives such as airspace or water traffic requirements.
- g. MACOMs and Marine Forces may communicate directly with the Army Training and Doctrine Command (TRADOC) command safety office for technical information and guidance on risk management.

4-6. Installation and unit level Range Safety Program guidelines

- a. The installation commander—
- (1) Ensures the installation public affairs office (PAO) is included in planning and executing the installation Range Safety Program. The PAO assists in the education of on-post and off-post personnel to include school children (kindergarten through 12th grade) in the dangers of trespassing on ranges and training areas and handling unexploded ordnance (UXO).
 - (2) Develops procedures to ensure all release of information to the public news media is made through the installation PAO and in accordance with AR 360-1.
 - (3) Ensures warnings are issued at least 24 hours in advance, through the installation PAO, to the public news media before firing operations that may involve possible hazards to the general public.
 - (4) Prohibits use of alcohol and controlled substances in the training complex and prohibit any individual under the influence of alcohol or controlled substance entrance into the training complex.
 - (5) Ensures ammunition and explosives not expended during training are returned to the ammunition supply point (ASP), in the original packaging, when firing is completed or as directed by local policy.
 - (6) Complies with Military Handbook (MIL-HDBK) 828A, or Space and Naval Warfare Instruction 5100.12 and Marine Corps Order (MCO) 5104.1, and this pamphlet in establishing firing ranges, training facilities, and maneuver areas for laser use within the installation training complex.
 - (7) Appoints a senior range safety officer for air defense artillery (ADA) guided missile and large rocket firing exercises.
 - (8) Ensures an aggressive education program on the dangers of dud ammunition and other items of UXO is implemented.
- b. The installation safety manager (Army)/installation range control officer (RCO)(Marine Corps)—
- (1) Provides oversight responsibility for all range safety matters (Army) and is responsible for all range safety matters (Marine Corps).
 - (2) Evaluates the overall effectiveness of the Installation Range Safety Program annually to ensure the Range Safety Program is being implemented in accordance with AR 385-63/MCO 3570.1B and installation range regulations and procedures.
 - (3) Inspects the installation training complex semiannually and high-risk training operations quarterly to support safety in training missions.
 - (4) Reviews proposed local range safety policies and procedures.
 - (5) Reviews and comments on all high-risk and/or extremely high-risk assessments for training and operations on installation owned facilities and units.

Chapter 6
Small Arms

6-1. Firing conditions

c. Range safety information and small arms SDZs in this chapter, direct-fire weapons SDZs in subsequent chapters, and appendix B are the Army standard. When designing ranges that involve fire and movement, or where ricochet hazards outside the range complex boundary may endanger nonparticipating personnel or the general public, SDZs in appendix B should be used.

A. All personnel within the hearing hazard zone will wear approved single hearing protection. The size of the hazard zone varies with the weapon. For mixed-use ranges, it is usually convenient to establish the zone based on the loudest weapon used. For administrative convenience, the size of the hearing protection zones can be increased to encompass areas within convenient access or demarcation points. For the Army, the installation commander may, based on risk management, reduce or eliminate the requirement for hearing protection, if the decision is that reduced hearing created by use of hearing protection outweighs its values. These decisions must be annotated in the affected soldiers' health records. The Marine Corps requires that all personnel exposed to gunfire or artillery or missile firing, under any circumstances, will wear hearing protective devices. The following list of distances to the hazard contours for common military weapons is conservative:

- (1) 0.50 caliber: 55 m to the side, 12 m to the rear.
- (2) 0.45 caliber: 12 m to the side, 4.5 m to the rear.
- (3) 9 mm: 9 m to the side, 6 m to the rear.
- (4) 7.62 mm: 20 m to the side, 8 m to the rear.
- (5) 5.56 mm: 24 m to the side, 6 m to the rear.

a. Approved eye protection (or eye armor) will be worn, especially during force-on-force training maneuvers or scenarios. The installation commander may, based on risk management, reduce or eliminate requirement for eye protection, if his/her decision is that reduced vision created by use of eye protection outweighs its value.

6-2. Overhead fire

a. Overhead small arms fire above protected troops is authorized when minimum protection shown in table 6-1 is provided. Table 6-1 shows the thickness of various materials needed to positively protect against individual projectile impacts. The material thickness will provide adequate protection against single round impacts, but not automatic fire. The data shown for 5.56-mm are for M193 Ball ammunition. The 5.56-mm M855 Ball ammunition may have greater penetration. AMC is currently testing the 5.56-mm M855 Ball ammunition for penetration capability and will develop and publish amended protection data (if required) as soon as possible.

Table 6-1
Minimum thickness of material for positive protection against caliber ammunition listed

Nature of cover	Thickness, in centimeters, by ammunition caliber		
	5.56 mm M193	7.62 mm	.50 cal
Concrete (5,000 psi)	12.7	17.8	30.5
Broken stone	35.6	50.8	76.2
Dry sand	40.6	61.0	81.3
Wet sand	63.5	91.4	121.9
Wire oak logs	71.12	101.6	142.2
Packed earth	81.3	121.9	152.4
Undisturbed compact earth	88.9	132.1	167.6
Freshly turned earth	96.5	142.2	182.9
Plastic clay	111.8	165.1	254

b. Overhead fire above unprotected troops with small arms may be conducted when authorized by the installation commander and specifically approved by the installation range control officer.

c. Weapon systems authorized for overhead fire of unprotected troops are 5.56-mm, 7.62-mm, and .50 caliber machineguns on ground tripods or vehicle mounts (ring mount excluded) firing from a stationary position. Overhead fire of unprotected troops from Marine Corps high multipurpose wheeled vehicles (HMMWV) is not authorized.

d. Only ammunition certified as cleared for overhead fire in TB 9-1300-385/NAVSEA TWO24-AA-ORD-010 will

be used. NSN and DOD Ammunition Code identify small arms ammunition certified for overhead fire of unprotected troops.

e. Hand-held, shoulder-fired, or flex-mounted weapon systems will not be fired over the heads of troops on infiltration courses.

f. Rates of fire will not exceed 70 rounds per minute for 5.56-mm and 7.62-mm machineguns and 40 rounds per minute for .50-caliber machineguns. Tracer ammunition may be used to assist in monitoring projectile paths.

g. Overhead fire with machineguns in live-fire exercises will be as follows:

(1) Firing positions for weapons delivering overhead fire will provide unobstructed field(s) of fire.

(2) Applicable ballistic tabular firing tables will be used to determine the minimum angle of elevation for all overhead fire. Projectiles will not be permitted to impact between the firing position and unprotected troops downrange. All impacts will be at least 30 m beyond the personnel most distant from the weapon.

(3) Positive stops must be used to prevent crossfire and depression of weapon systems during overhead firing.

(4) Weapon systems will be test fired before delivery of overhead fire to verify the effectiveness of positive traverse and depression stops.

(5) Minimum vertical clearance requirements established in paragraph 6-2h(3) apply.

h. The following precautions will apply to overhead fire with machineguns on infiltration courses.

(1) Firing will be from approved platforms, using the M142 mount.

(2) Mounts and weapon systems will be inspected by qualified field maintenance personnel before being declared safe to deliver overhead fire.

(3) A minimum vertical clearance of 2.5 m over the heads of unprotected troops or the highest obstruction within the field of fire will be maintained. This minimum vertical clearance is the distance between the lowest shot in the dispersion pattern as determined by test firing and the highest point of ground, log, or other obstacle over which troops must travel or heights of barbed wire strands or posts on the course, whichever is higher.

(4) Weapons will be positioned so that the direction of fire prevents projectiles from striking trees or any other obstacles in the vicinity of unprotected troops. Projectiles will impact at least 30 m beyond the most distant personnel on the course from the weapon.

6-3. Flanking fire

a. Ground-mounted or vehicle-mounted small arms may be used to provide low angle flanking fire when a minimum angle of 15° between the limit of fire and exposed troops is maintained.

b. Positive means will be employed to ensure that the firing unit knows the location of the maneuver units while fire support is being provided.

c. The route and location of maneuver units and the location of the weapons providing flanking fire support will be described in detail using recognizable natural and/or manmade terrain features, or other positive identification features to all involved personnel.

d. Because of the danger of lateral ricochets, flanking fire should be planned using the SDZ data in appendix B. However, if this is not feasible, the following minimum conditions apply:

(1) Weapons will be mounted on ground mount tripods or vehicle mounts.

(2) Projectiles must not impact any closer to unprotected personnel than 100 m.

(3) Only nonexplosive and nondiscarding sabot projectiles may be used.

(4) An angle of 15° or more must be maintained between the limit of fire and near flank of the closest individual or maneuvering unit.

6-4. Shotgun ranges

a. Skeer and trap range plans may be found in the folio of standard drawings, appendix E of file no. 750-90-01, "Planning and Design of Indoor and Outdoor Sports Facilities", published by U.S. Army Engineering Support Center, Huntsville, AL 35807-4301.

b. Training used for shotgun firing will be according to SDZ requirements in figure 6-1 and table B-1.

6-5. Surface danger zone

a. Figure 6-1 depicts the SDZ for small arms, machineguns, and shotguns firing from a single firing position along the line of fire, also known as gun target line (GTL) to a single target.

b. When the nature or extent of training requires multiple firing positions, the SDZ in figure 6-1 will be bisected longitudinally and the GTL expanded to accommodate multiple targets. This establishes left and right limits of fire.

c. When the nature or extent of training requires moving targets, the SDZ in figure 6-1 will be bisected longitudinally and the GTL expanded to accommodate moving targets. This establishes the left and right limits of fire.

d. Live-fire maneuver areas requiring multiple or composite SDZs must be constructed on the basis of each weapon, ammunition, and target engagement scenario. (See appendix C.)

6-6. Blank ammunition

a. The following precautions will be observed during the use of blank ammunition:

(1) The blank firing attachment (BFA) is a necessary component for operational safety. Weapon systems for which approved BFAs are manufactured will not be fired without the proper BFA. The distance at which weapons can be safely fired at unprotected troops without causing injury is somewhat reduced with the BFA. However, 5 m safe separation distance (SSD) will not be reduced. This distance, with a dispersion angle of 10 degrees left and right of the GTL, does not exclude possible injury to the unprotected eye. Hearing protection (ear plugs) should be worn while firing blank ammunition.

(2) Army-issue battle dress uniforms offer skin protection and should be worn at all times. Eye protection should be used by the firer.

b. A violation of the SSD could result in serious injury. If the SSD is decreased to within 0.9 meters, fatal injuries may occur.

6-7. Recreational ranges

Procedures contained in this pamphlet as they apply to risk management, safety certification, range usage, and deviation procedures will be used to mitigate or resolve safety issues or conflicts for recreational ranges located on government property.

Chapter 7

Grenades and Grenade Launchers

7-1. Hand grenades

a. *High explosive loaded type grenades.* These contain explosive charges that detonate after a short delay (3 to 5 seconds). Every precaution will be taken to prevent injury from flying fragments. For training purposes, fragmentation and offensive hand grenades will be thrown from a trench or barrier equivalent to a screen of sandbags 0.5 m thick. When throwing bays are used for protection, they will be built to a minimum height of 1.5 m high and wide enough to accommodate one thrower and one ARSO. Bay height may be reduced to less than 1.5 m if approved by the installation commander. However, it must provide positive protection against high-velocity, low-angle fragments. (See FM 3-23.30 for other dimensions and additional information.) Throwing bays will be separated from adjacent bays by a distance of 20 m. If this requirement cannot be met, throwing bays may be separated from one another by physical barriers (that is, earthen berms, concrete walls, or wooden revetments) long and high enough to attenuate high-velocity, low-angle fragments.

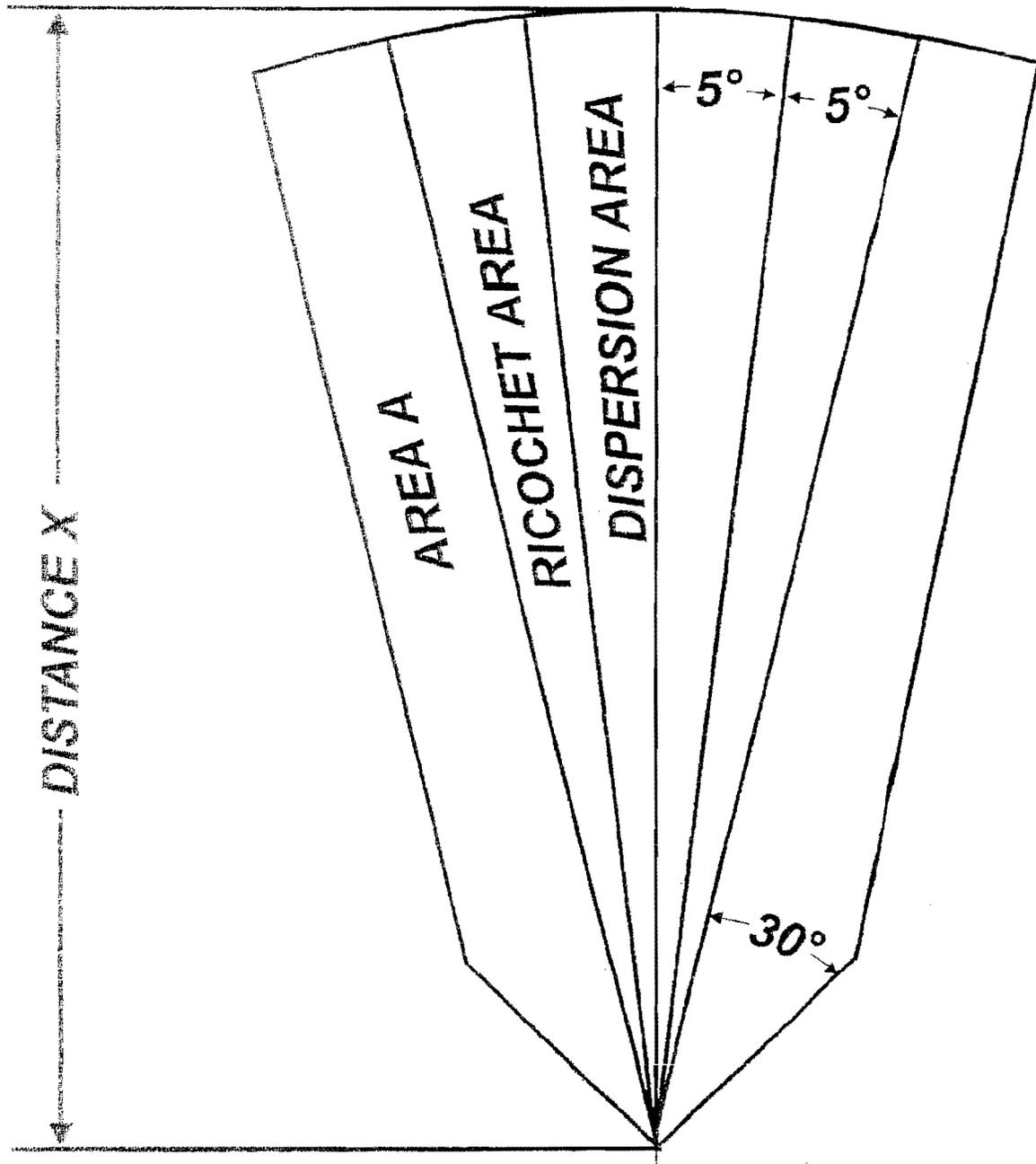
b. *Firing conditions for fragmentation and offensive grenades.*

(1) Personnel within the 150-m danger area when casualty-producing hand grenades are thrown will wear approved protective helmets, protective body armor (flak jackets), single hearing protection, and proper eye protection.

(2) Safety clips on fragmentation and practice grenades will not be removed until immediately before the safety pin is removed. Once the safety pin has been pulled, the grenade will be thrown. No attempt will be made to reinsert the safety pin or tape the safety lever (spoon). The safety lever will not be released for any reason on HE grenades until the grenade exits the throwing hand at the command of the ARSO.

(3) All personnel must be proficient in the safety precautions for handling and throwing grenades before live grenade training begins. Successful completion of practice grenade training (usually referred to as mock bay) is mandatory prior to live grenade training.

(4) DIC, RSOs, and live bay ARSOs for live grenade training events must be certified to perform these duties. Certification will include training detailing actions in the event of a dropped grenade, short throw, grenade thrown other than downrange, SDZ, control of observers, misfire/dud grenade procedures, arming, throwing techniques, and



Notes:
 For distance X, see appendix B, table B-1.
 Area A = 100 m.

Figure F-1. SDZ for firing small arms, machineguns, and shotguns firing at a fixed ground target

COMPOSITE RISK MANAGEMENT WORKSHEET

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

1. MSN/TASK MARKSMANSHIP TRAINING, EASLEY RANGE	2a. DTG BEGIN 20090701	2b. DTG END 20100701	3. DATE PREPARED (YYYYMMDD) 20090628
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4. PREPARED BY		
a. LAST NAME LEONARD	b. RANK CPT	c. POSITION S-3 OPERATIONS AND TRAINING RANGER SPECIAL TROOPS BATTALION, 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?
Conduct basic through advanced marksmanship training.	Personnel injury due to accidental discharge of a weapon.	M	Weapons loaded and unloaded on firing line. Only qualified Ranger personnel may handle weapons. Dry fire, blank fire, and rehearsals are conducted to make sure all are trained.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Unauthorized personnel are downrange during firing.	M	Range open and closed through Range Control. Range flags and barricades in place while firing. 100% monitoring of range radio at all times	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	General range hazards	M	OIC, RSO, and Instructors, will brief on hazards listed on the Daily Risk Assessment and Risk management worksheets.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Range/general situational awareness.	M	Read/Review the Risk assessment and brief all personnel. Ensure that all SOP/regulations are followed, all safety equipment is used and all personnel are training and qualified.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Specific hazards hearing and sight loss	M	All personnel on the range are required to wear hearing and eye protection during training. All Rangers are enrolled in Ft. Benning Occupational Health Screening Program.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Bullet/fragment/steel target injuries from ricochet	M	Artificial barriers are installed, dirt berms installed, fixed firing points, steel targets angle down to control splatter. All Rangers are briefed on minimum distances from steel.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	

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 MINGUS	b. RANK COL	c. DUTY POSITION COMMANDER 75TH RANGER REGIMENT	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?
Conduct basic through advanced marksmanship training.	Insect Bites	M	Allergic personnel will be identified and briefed. Will have bite kit on hand, and if allergic reaction takes place 911 emergency assistance will be called.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Minor body injury, cuts and falls.	M	Brief personnel on tripping hazards: rocks, branches, fallen trees, and creek beds	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
Weapon Cleaning	Cleaning solvents are ignitable.	M	No smoking in or near facilities, cleaning done in ventilated area, empty containers disposed of IAW Hazmat Regs. Fire fighting equipment on hand and serviceable.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
General Range Awareness	Downrange movement to set up, repair, and take down targets.	M	Upon occupation of the range, an opening code will be requested from Range Control and flag will be put up to identify the range is hot.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
		M	Will notify Range Control when going up and down range to place or take down targets. Barricades will be placed once everyone is back from downrange.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
		M	At the end of the day once the closing code has been received the flag will be taken down to identify that the range is no longer hot	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
Heat/Cold Awareness Foul Weather Lightning	Injury due to Heat/Cold, foul weather and lightning	M	All Rangers are trained in Preventive Medicine for heat and cold injuries. Training is halted during periods of foul weather or lightning is present.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
		M	All personnel will be moved inside range building. All equipment will be grounded. 100% monitoring of the radio. Water will be available at all times while on the range.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
		M	Previous heat/cold injuries will be identified during periods of cold weather all personnel will have adequate cold weather clothing available. Protective clothing and equipment is mandatory	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
Pits Operational Awareness	Injury due to moving target carriage up and down.	M	Upon entering the pits area, Ranger Personnel will be briefed by the pits area NCOIC. All commands will be made by the Pits Area NCOIC.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	

COMPOSITE RISK MANAGEMENT WORKSHEET

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

1. MSN/TASK MARKSMANSHIP TRAINING, MCANDREWS RANGE	2a. DTG BEGIN 20090701	2b. DTG END 20100701	3. DATE PREPARED (YYYYMMDD) 20090628
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4. PREPARED BY		
a. LAST NAME LEONARD	b. RANK CPT	c. POSITION S-3 OPERATIONS AND TRAINING RANGER SPECIAL TROOPS BATTALION, 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?
Conduct basic through advanced marksmanship training	Personnel injury due to accidental discharge of a weapon.	M	Weapons loaded and unloaded on firing line Only qualified Ranger personnel may handle weapons. Dry fire, blank fire, and rehearsals are conducted to make sure all are trained.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	Unauthorized personnel are downrange during firing.	M	Range open and closed through Range Control. Range flags and barricades in place while firing. 100% monitoring of range radio at all times.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
	General range hazards.	M	OIC, RSO, and Instructors, will brief on hazards listed on the Daily Risk Assessment and Risk management worksheets.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
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13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check one)
<input type="checkbox"/> LOW <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> HIGH <input type="checkbox"/> EXTREMELY HIGH

14. RISK DECISION AUTHORITY			
a. LAST NAME MINGUS	b. RANK COL	c. DUTY POSITION COMMANDER 75TH RANGER REGIMENT	d. SIGNATURE

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 EFFEC-TIVE?
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	Minor body injury, cuts and falls.	M	Brief personnel on tripping hazards: rocks, branches, fallen trees, and creek beds.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
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		M	At the end of the day once the closing code has been received the flag will be taken down to identify that the range is no longer hot.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
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		M	All personnel will be moved inside range building. All equipment will be grounded. 100% monitoring of the radio. Water will be available at all times while on the range.	L	IAW: Range SOP 75th RANGER REG SOP USAIC Reg 350-1 USASOC Reg 385-1	OIC RSO/Instructors Combat Lifesavers RFR	
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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
REGIMENTAL SPECIAL TROOPS BATTALION,
75TH RANGER REGIMENT
7820 SIGHTSEEING RD, BLDG 2836,
FORT BENNING GEORGIA 31905-5843

AORG-STB-AO

23 June 2009

MEMORANDUM FOR Chief Range Control, Directorate of Plans, Training and Mobilization

SUBJECT: Standard Operating Procedures for Use of Steel Targets during 75th Ranger Regiment Live-fire Training

1. REFERENCES:

- a. DA PAM 385-63, Range Safety, 12 Apr 03
- b. USASOC Regulation 385-1, Chapter 11-6, Engaging Steel Targets, 6 Nov 08

2. The 75th Ranger Regiment utilizes steel targets to receive instant feedback from training drills used during live fire exercises. As stated in Army Field Manuals, Army Safety Regulations, Department of the Army Pamphlets, Memorandums, and Documents that support proper safety techniques, Army marksmanship will always be hazardous. The awareness of the inherent risks allows the Ranger Regiment to develop and implement controls. The use of steel targets is just one more factor to be included in the risk management program. The 75th Ranger Regiment has taken precautions to ensure proper uses of all steel targets are enforced.

The OIC/RSO ensures the target positioning in which the steel will be pointed downward to reduce ricochet and will not violate the Left and Right limits. The OIC/RSO will also ensure targets will be positioned at the base of the berm to avoid Rangers from shooting over the top of the berm compartment. Rangers will engage targets from a safe distance in IAW the limitations described in this Regimental SOP for use of Steel Targets and the Fort Benning Form 210-4-3-R scenario that is used in conjunction with the Range Waiver.

3. Below are some examples of training where the use of steel targets is incorporated into our mission. The following is a partial list:

- a. Steel targets are an integral part of our marksmanship and live fire training. They provide a definite, unmistakable feedback, both visual and audio, to the shooter; the sound confirms a hit, and clearly visible shot groups allow coaching from the firing line instead of downrange, making for more efficient training.
- b. Utilizing steel targets for our training allows Rangers to dedicate all available training time to shooting instead of moving down range and repairing paper targets.
- c. Steel targets are more economical than paper targets and electronic targets, as they need only paint and minimal care to remain serviceable for many years.

AORG-STB-AO

SUBJECT: Standard Operating Procedures for Use of Steel Targets during 75th Ranger Regiment Live-fire Training

4. The 75th Ranger Regiment Steel Standard Operating Procedures are IAW the USASOC 385-1, Chapter 11-6: Engaging Steel Targets, 06 Nov 08:

a. Steel targets, reactive (targets that move), and non-reactive (targets that do not move), are used to provide the shooter with instant feedback on target engagement and round placement. However, steel targets can increase the chance of injury to the shooter from bullet fragmentation (“splash back”) if they are engaged too close or if the targets are not maintained or replaced when they become pitted/damaged. Targets made of poor quality steel also increase the chance of splash back or spalling. To preclude this, steel targets will be constructed of abrasion resistant (AR) 500 steel.

b. Steel targets will be engaged with the shooter squared, facing the target. No engagements will be fired at oblique angles or parallel to the target. Non-reactive targets will be placed at a slight downward angle directing the round’s fragments towards the ground. Actual engagements will be single rounds, controlled pairs, or double-tap engagements. Automatic fire is not authorized. Reactive and non-reactive steel target engagements should not be closer than seven (7) meters with pistol ammunition, 25 meters with 5.56mm, or 100 meters with 7.62mm. Armor piercing ammunition will not be used to engage steel targets.

c. The RSO will inspect all steel targets prior to use. Steel targets that have excessive surface pitting, are completely shot through, or a split are considered unserviceable and will not be used.

5. General safety requirements remain the same. The use of steel targets are included in the range Risk Management Worksheet, Range SOP, and Range Safety Briefings. If there is steel in any array, Wrap Around Eye Protection and Ear Protection are required for all Rangers. During Training Events: helmet and RBA are added along with Eye and Ear Protection, with exceptions as per Regimental policy and the Risk Management Worksheet.

6. There will always be some amount of fragments from shooting steel, once rounds impact a piece of steel the path of fragments cannot be guaranteed. By using these guidelines set, most fragments will not reach the shooters, and any fragments that do will not be capable of inflicting serious injury.

7. All use of steel targets are requested by the 75th Ranger Regiment and approved by the Commanding General of Fort Benning under each 75th Ranger Regiment range Safety Waiver.

8. POC for this action is CPT Thomas Leonard, RRC AOPSO, 706 626 2722 or thomas.butler.leonard@soc.mil.

/// original signed ///

JAMES L. MINGUS
COL, IN
Commanding