

TRANSMITTAL, ACTION AND CONTROL

For use of this form see USAIC Memo 1-2; the proponent is SGS

1. SGS LOG:	2. IN SGS:	3. OUT SGS:	4. DATE PREPARED: 20 Nov 2009
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5. SUBJECT:
Range Waiver - Buchanan Range Shoot House

6. ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER Bob Brown/Dir DPTMS/545-2918	7. DIRECTOR'S/COMMANDER'S SIGNATURE <i>[Signature]</i> H103, DEP G3 11/25/09
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SIGNATURE
 APPROVAL
 INFORMATION
 SGS DEP CofS Garrison CSM USAIS CSM USAARMS CSM MCOE CSM CDID
 GC CofS DCG Comdt, IN School Comdt, AR School CG

1. PURPOSE: To obtain the MCOE Commanding General's approval of the range safety waiver for Buchanan Range UACC Shoot-House.

2. RECOMMENDATION: CG approve/waive the Surface Danger Zone (SDZ) that extends in a 360 degree circle beyond the outer walls of the Shoot-House to a distance of 3437 meters, but reduced to zero meters

3. DISCUSSION:
 Buchanan Range is an Urban Assault Course Complex consisting of seven training stations, 25m zero, Combat Pistol Course, and a Shoot-House allowing simultaneous use of some of the training sites. The Army safety community approved the construction of the Shoot-House to certified US Army Corps of Engineers standards. The walls of the Shoot-House are made of 36" x 36" thick shock absorbing concrete blocks, ten feet high designed to absorb repeated firing of 5.56mm ball and 9mm ball ammunition (the only ammo approved for use) without failure. Range personnel, to ensure the integrity of the design, will conduct periodic checks for damage and training fair-wear-tear. All personnel observing or participating in urban combat training will wear proper personal clothing and equipment (PCE). Minimal PCE requirements for urban combat include ballistic helmet, body armor, hearing, and ballistic eye protection. Commanders are ultimately responsible for the safe conduct of range operations.

Request CG waive the Surface Danger Zone (SDZ) that extends in a 360 degree circle beyond the outer walls of the Shoot-House to a distance of 3437 meters, but reduced to zero meters due to the inherent DA/COE design of the shoot house (artificial barriers) and controlling conditions stated above. This waiver will be approved for 12 months, or until rescinded by the MCOE G-3.

8. COORDINATION/APPROVAL

S: 2 Dec 2009

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
Range Surv	CONCUR	MR TESCH 11/24/09			
Range Opns	CONCUR	MR WEEKLEY 11/24/09			
Safety	CONCUR	MR HESTER 11/24/09			
DPTMS	CONCUR	<i>[Signature]</i> 11/25/09			
G-3	CONCUR	<i>[Signature]</i> 12/01/09			

STAFF REMARKS: (Command Group Use Only)	APPROVAL AUTHORITY APPROVED: DISAPPROVED: NOTED:
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DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MANEUVER CENTER OF EXCELLENCE
7602 CHESNEY STREET, C0001
FORT BENNING, GEORGIA 31905-4500

REPLY TO
ATTENTION OF

ATZB-OT

3 DEC 09

MEMORANDUM FOR DIRECTOR, PLANS, TRAINING, & MOBILIZATION, U.S. ARMY
GARRISON, FORT BENNING, GA 31905

SUBJECT: Waiver of Live Fire Exercise Safety Criteria for Buchanan Range Shoot House

1. REFERENCES:

- a. Army Regulation 385-63, Range Safety, 19 May 2003.
- b. DA Pamphlet 385-63, Range Safety, 10 April 2003.
- c. TRADOC Regulation 385-2, TRADOC Safety Program, 10 October 2000.

2. DISCUSSION. Buchanan Range is an Urban Assault Course Complex consisting of seven training stations, 25m zero, Combat Pistol Course, and a Shoot-House allowing simultaneous use of some of the training sites. The Army safety community approved the construction of the Shoot-House to certified US Army Corps of Engineers standards. The walls of the Shoot-House are made of 36" x 36" thick shock absorbing concrete blocks, ten feet high designed to absorb repeated firing of 5.56mm ball and 9mm ball ammunition (the only ammo approved for use) without failure. Range personnel, to ensure the integrity of the design, will conduct periodic checks for damage and training fair-wear-tear. All personnel observing or participating in urban combat training will wear proper personal clothing and equipment (PCE). Minimal PCE requirements for urban combat include ballistic helmet, body armor, hearing, and ballistic eye protection. Commanders are ultimately responsible for the safe conduct of range operations.

3. IAW the provisions of AR 385-63, Authority to Waiver Safety Criteria, and controlled by paragraph 2 above, the Buchanan Range Shoot House Surface Danger Zone (SDZ) that extends in a 360 degree circle beyond the outer walls of the Shoot-House to a distance of 3437 meters is waived to zero meters based on the artificial barriers or controlling conditions stated above.

4. This waiver is approved for 12 months (unless rescinded by the MCOE G-3) when used in conjunction with approved live fire range scenarios and current 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.

5. The point of contact for this action is Mr. Archibald J. Caldwell, III, Range Specialist, Range Division, Directorate of Plans, Training, Mobilization and Security, 545-3446.

MICHAEL FERRITER
Major General, USA
Commanding



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
SOUTHEAST REGION
GARRISON COMMAND
35 RIDGWAY LOOP, ROOM 385
FORT BENNING, GEORGIA 31905

IMSE-BEN-PLT-R

25 NOV 2009

MEMORANDUM FOR COMMANDING GENERAL, MANEUVER CENTER OF EXCELLENCE
(MCOE), 35 RIDGWAY LOOP, FORT BENNING, GA 31905

SUBJECT: Range Waiver for Buchanan Range Urban Assault Course Complex (UACC) Shoot House

1. REFERENCE:

- a. AR 385-63, May 2003 and DA Pamphlet 385-63, April 2003, Range Safety.
- b. Memorandum, HQ TRADOC, Regulation 385-2, October 2000, Subject: TRADOC Safety Program.
- c. Buchanan Range Composite Risk Management Assessment, November 2009

2. PURPOSE. To obtain the MCOE Commanding General's approval of the range safety waiver for Buchanan Range UACC Shoot-House.

3. DISCUSSION. Buchanan Range is an Urban Assault Course Complex consisting of seven training stations, 25m zero, Combat Pistol Course, and a Shoot-House allowing simultaneous use of some of the training sites. The Army safety community approved the construction of the Shoot-House to certified US Army Corps of Engineers standards. The walls of the Shoot-House are made of 36" x 36" thick shock absorbing concrete blocks, ten feet high designed to absorb repeated firing of 5.56mm ball and 9mm ball ammunition (the only ammo approved for use) without failure. Range personnel, to ensure the integrity of the design, will conduct periodic checks for damage and training fair-wear-tear. All personnel observing or participating in urban combat training will wear proper personal clothing and equipment (PCE). Minimal PCE requirements for urban combat include ballistic helmet, body armor, hearing, and ballistic eye protection. Commanders are ultimately responsible for the safe conduct of range operations.

4. RECOMMANDATION. Commanding General waive the Surface Danger Zone (SDZ) that extends in a 360 degree circle beyond the outer walls of the Shoot-House to a distance of 3437 meters, but reduced to zero meters based on the artificial barriers or controlling conditions stated above.

5. The point of contact for this action is Mr. Archibald Caldwell, Range Specialist, Range Division, Directorate of Plans, Training, Mobilization and Security, 545-3446.

ROBERT W. BROWN
YC-03, US Army
Director, Plans, Training, & Mobilization

Buchanan Range Shoot House Waiver

ISSUE: Buchanan Range shoot house requires zero degrees SDZ waiver

DISCUSSION:

- Buchanan range is an urban assault course complex consisting of 7 training stations, a 25m zero range, a combat pistol course, and a shoot house
- The shoot house is constructed to US Army Corps of Engineers approved standards
- The walls of the shoot house are made of 36" x 36" thick Shock Absorbing Concrete blocks, ten feet high designed to absorb repeated firing of 5.56mm ball and 9mm ball ammunition (the only ammo approved for use) without failure.
- Range personnel conduct daily checks of the panels for damage to ensure safe live fire training
- In accordance with AR 385-63, Range Safety, the shoot house facility is considered a "baffled firing range" and its inherent design requires an approved SDZ waiver
- Area to be waived: **The surface danger zone (SDZ) that extends in a 360 degree circle beyond the outer walls of the shoot house to a distance of 3437 meters, but reduced to 0 meters based on design & material.**

RECOMMENDATION: Approve Buchanan Range Shoot House Waiver.



Mitigation Measures

General Procedures

- Commanders are responsible for the safe conduct of range operations.
- Commanders, Range Officers in Charge (OIC), and Range Safety Officers (RSO) of units conducting range operations will review and comply with AR 385-63 & DA Pam 385-63.
- Commanders will ensure that if any combination of blanks, Non-Lethal Training Ammunition (NLTA), Short Range Training Ammunition (SRTA), Frangible, and/or ball ammunition are located on the range at the same time that the items remain segregated and that only one type of ammunition at a time is broken down for issue and use.
- Commanders will ensure that all weapons are properly configured to fire the ammunition being used.
- Personnel, weapons, and equipment will be inspected prior to each phase of weapons training to ensure that there is no mixing of ammunition types.
- Prior to departure from the range, an ammunition shakedown inspection (personnel, weapons, and equipment) will be conducted for all participants.

Mitigation Measures

Shoot House Specific

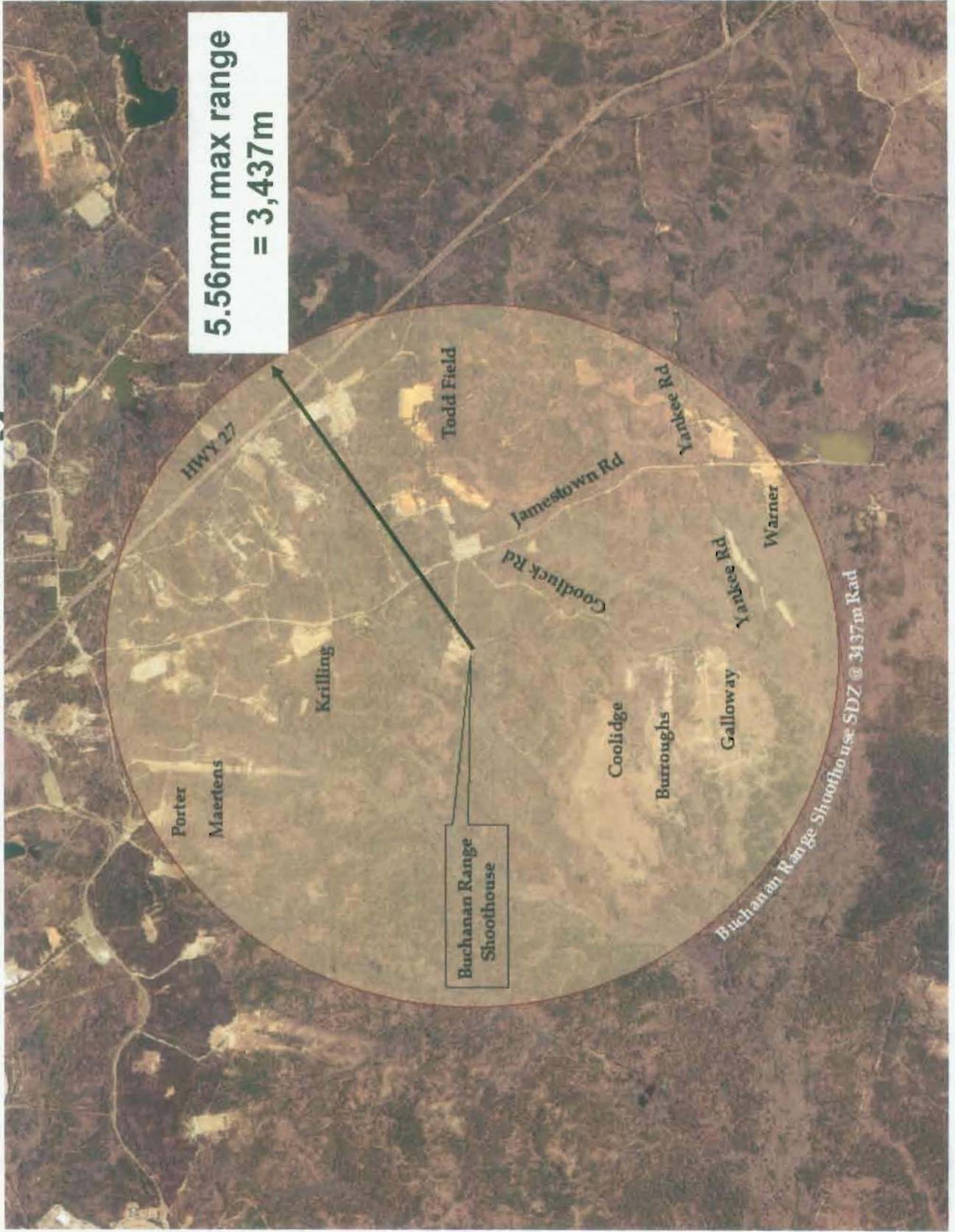
- Ensure a qualified Range OIC and a Range Safety Officer (RSO) is designated for all range activities IAW AR 385-63
 - These individuals will not be assigned other duties or responsibilities
- Ensure that all personnel observing or participating in Urban Combat training wear proper personal clothing and equipment (PCE).
 - Minimal PCE requirements for urban combat include ballistic helmet, body armor, hearing, and ballistic eye protection
- Ensure the “Crawl, Walk, Run” method of training is employed for all LFXs
 - “Crawl” Phase. Talk-through LFX Step-by-Step rehearsal without ammunition.
 - “Walk” Phase. Full speed LFX rehearsals using dry fire or blank ammunition
 - “Run” Phase. LFX scenarios with live fire ammunition.
- Ensure Range OIC & RSO ensure targets are emplaced by a range subject matter expert
 - The scenario, Soldier skill level, interior configuration, type of construction of the structure, target zones, and SDZs dictate the target placement.
 - No automatic live-fire or tracer rounds will be permitted
- Ensure all Soldiers understand each scenario prior to execution

Buchanan Range

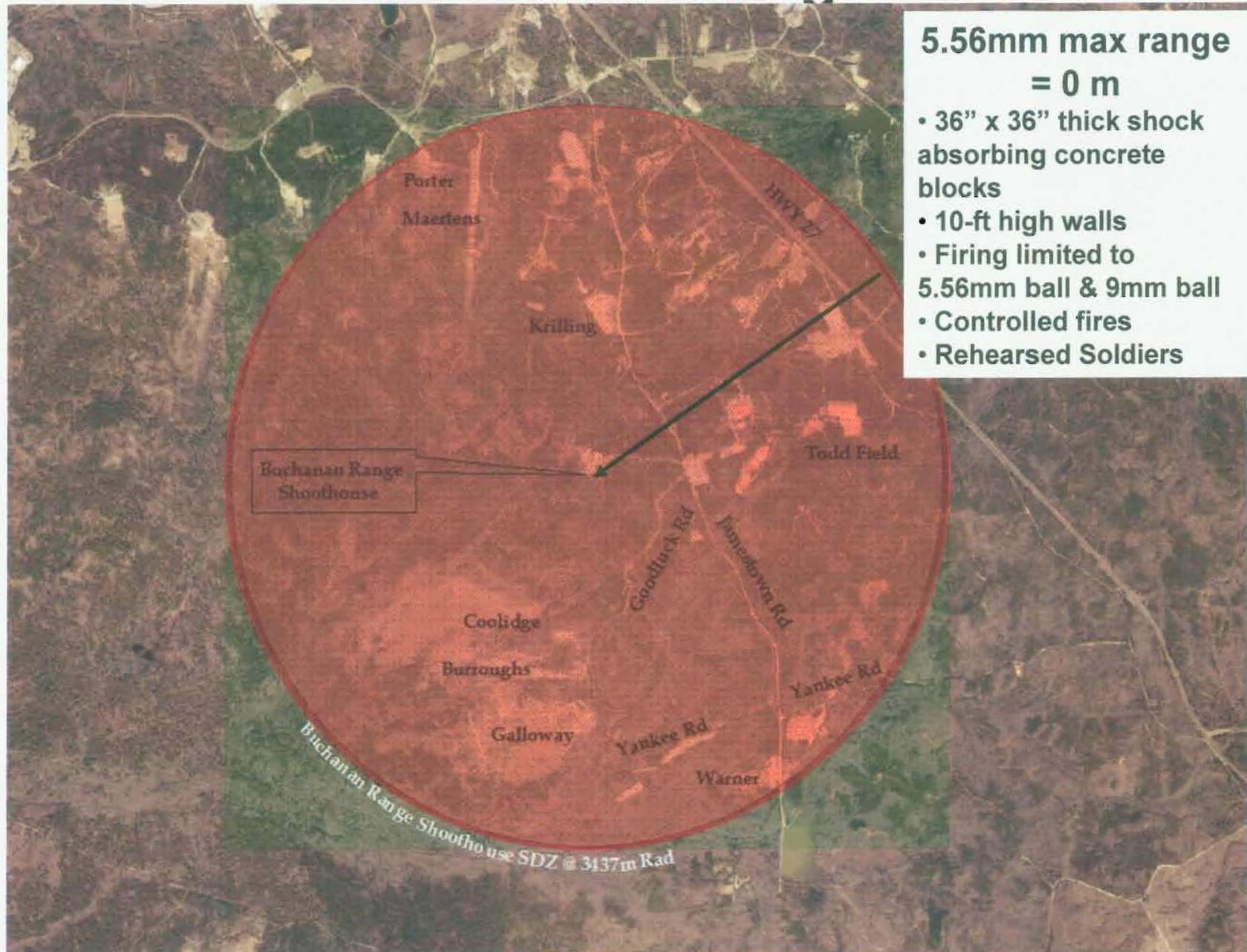
Buchanan Range UAC
Station 1: Individual/Team Task Technique Trainer
Station 2: Squad/Platoon Task Technique Trainer
Station 3: Grenadier Gunnery Trainer
Station 4: Offense/Defense Building Task Technique Trainer
Station 5: Underground Trainer
Station 6: Individual/Team Task Technique Trainer
Station 7: Squad/Platoon Task Technique Trainer
Shoot House
25m Zero/AMT
Combat Pistol Course



Buchanan Range



Buchanan Range



**5.56mm max range
= 0 m**

- 36" x 36" thick shock absorbing concrete blocks
- 10-ft high walls
- Firing limited to 5.56mm ball & 9mm ball
- Controlled fires
- Rehearsed Soldiers

COMPOSITE RISK MANAGEMENT WORKSHEET

For use of this form, see FM5-19; the proponent agency is TRADOC

1. MSN/TASK TARGET SYSTEMS BRANCH		2a. DTG BEGIN 30 NOV 09		2b. DTG END Indefinite		3. DATE PREPARED (YYYYMMDD) 2009/11/20	
4. PREPARED BY:							
a. LAST NAME Caldwell			b. RANK YC-02		c. POSITION Range Specialist		
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?
ALL	Range/General Situational Awareness	High	<p>The Range Officer in Charge (OIC)/Safety Officer (RSO) will do the following:</p> <ol style="list-style-type: none"> 1. Read and review the Risk Assessment. 2. Ensure cadre combat lifesavers and a dedicated evacuation vehicle are available. Medic, if required, will be in the evacuation vehicle and in communication with the RSO. Inventory the combat lifesavers first aid bag. Identify problem Soldiers – suicidal or homicidal intent or gestures, or demonstration of serious emotional adjustments. <p>Identify Soldiers with medical problems having the potential to impact training to include minor illnesses, allergies, previous heat and/or cold weather injuries, or environmental sensitivities.</p>	Marginal	OIC/RSO follows instructions.	OIC	
Additional space for entries in Items 5 through 11 is provided on page 2.							
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 BROWN			b. RANK YC-03		c. DUTY POSITION Director		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 EFFECTIVE?
All	Heat Injury	High	<p>EASY WORK</p> <ul style="list-style-type: none"> a. Weapon maintenance. b. Walking hard surface at 2.5 MPH, 30 pound load. c. Manual of arms. d. Marksmanship training. e. Drill and ceremony. <p>MODERATE WORK</p> <ul style="list-style-type: none"> a. Walking loose sand 2.5 MPH, no load. b. Walking hard surface at 3.5 MPH, less than 40 pound load. c. Calisthenics. d. Patrolling. e. Individual movement techniques, I.E. low crawl, high crawl. f. Defensive position construction. g. Field assaults. <p>HARD WORK</p> <ul style="list-style-type: none"> a. Walking hard surface at 3.5 MPH, more than 40 pound load. b. Walking loose sand at 2.5 MPH, with load. <p>3. Daily water intake should not exceed 12 quarts.</p> <p>Evacuate heat casualties.</p>	Moderate	Range personnel & Soldiers in training follow instructions.	OIC/RSO LEADER-MAN	

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?
All	Heat, CONT	High	<p>HEAT WBGT MODERATE CAT INDEX F WORK WATER</p> <p>1. 78-81.9 NL 3/4 2. 82-84.9 50/10 3/4 3. 85-87.9 40/20 3/4 4. 88-89.9 30/30 3/4 5. >90 20/40 1</p> <p>HEAT WBGT HARD CAT INDEX F WORK WATER</p> <p>1. 78-81.9 40/20 3/4 2. 82-84.9 30/30 1 3. 85-87.9 30/30 1 4. 88-89.9 20/40 1 5. >90 10/50 1</p> <p>EASY WORK</p> <p>f. Weapon maintenance. g. Walking hard surface at 2.5 MPH, 30 pound load. h. Manual of arms. i. Marksmanship training. j. Drill and ceremony.</p> <p>MODERATE WORK</p> <p>h. Walking loose sand 2.5 MPH, no load. i. Walking hard surface at 3.5 MPH, less than 40 pound load. j. Calisthenics. k. Patrolling. l. Individual movement techniques, I.E. low crawl, high crawl. m. Defensive position construction. n. Field assaults.</p> <p>HARD WORK</p> <p>c. Walking hard surface at 3.5 MPH, more than 40 pound load. d. Walking loose sand at 2.5 MPH, with load.</p> <p>3. Daily water intake should not exceed 12 quarts. 4. Evacuate heat casualties in accordance with unit SOP/post guidance. 5. Brief all Soldiers on signs of heat injuries.</p>	Moderate	OIC/RSO follows instructions.	OIC	

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?
ALL	Cold	Moderate	<p>1. All Soldiers with previous cold injuries will be identified and closely monitored through the buddy system, unit leadership and instructors.</p> <p>2. Immersion foot: Cause: prolonged immersion cold water, usually in excess of 12 hours at temperatures below 50 degrees Fahrenheit.</p> <p>3. Trench foot: Cause: exposure to wetness and cold between freezing and 50 degrees Fahrenheit, lasting hours to several days.</p> <p>4. Frost bite: Cause: exposure to cold at temperatures at freezing or below, for minutes to several hours.</p> <p>5. Hypothermia: Cause: heat loss exceeding body's heat production resulting in body temperature of 95 degrees Fahrenheit, or lower.</p> <p>6. First aid measures: remove wet clothing, rest affected part and rewarm it promptly to room temperature, except in the case of frostbite when thawing should only be attempted by medical personnel. Treat injuries and evacuate to medic or a troop medical clinic.</p> <p>7. Ensure all Soldiers have proper cold weather clothing.</p>	Low	OIC/RSO follows instructions.	OIC	

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?
ALL	Fire Hazard	Moderate	OIC/RSO/Ammunition NCO will; 1. Enforce the no smoking within 50 feet of the ammunition point rule. 2. Ensure that there are two fire extinguishers at each active ammunition point.	Low	OIC/RSO follows instructions.	OIC	
Enter Building / Clear Room	Fratricide/Accidental Discharge	High	A detailed safety brief will be given to all Soldiers. All Range SOP's on LFX will be enforced. OC's will move with the element conducting the LFX. Weapons awareness will be emphasized during safety brief. Element leaders will supervise and inspect their men. All Soldiers will receive safety brief prior to execution. Soldiers will maintain muzzle awareness and positive control at all times. Rehearse scenarios and practice safe weapon usage.	Moderate	OIC/RSO follows instructions.	OIC	
Enter Building / Clear Room	Fratricide Eye injury	High	Soldiers will wear gloves, Kevlar, Body Armor, and eye protection. Soldiers will shoot targets in their sector only. Shoot house will be inspected for obstacles prior to training.	Moderate	OIC/RSO follows instructions.	OIC	
Enter Building / Clear Room	Personnel injury due to accidental discharge of a weapon.	High	Weapons only loaded and unloaded on within the cement foot print of the shoot house.	Moderate	OIC/RSO follows instructions.	OIC	